



This year, when you think about jam, think about peaches (think about Certo, too)

This is the year to try something new when you're making your own jam. Peaches, for instance. Peach jam is a real favourite—and it's easy to make. Peaches will soon be available so plan now to turn that golden goodness into jam for your family. (Remember, nothing tastes better than the jam you make yourself.) Plan to use Certo too. By adding Certo fruit pectin, you get up to 50% more jam or jelly. And Certo locks all the goodness in with its flavour-saving 1 minute boil.



Use Certo Liquid or Crystals with all your preserving fruits.

PEACH APPLE JAM

Yield: about 11 medium glasses (5½ lbs. jam)

- 5 cups prepared fruit (about 1½ qts. each ripe apples and ripe peaches.)
- 1 teaspoon grated lemon rind
- ⅓ cup lemon juice (2 or 3 lemons)
- 6½ cups (2¾ lbs.) sugar
- 1 box Certo Crystals

First, prepare the fruit. Peel and core about 1½ quarts fully ripe tart apples. Chop fine. Peel and pit about 1½ quarts fully ripe peaches. Chop fine. Combine fruits and measure 5 cups into a very large saucepan. Grate the rind from 1 medium-sized lemon, measure 1 teaspoon, and add to fruit. Squeeze the juice from 2 or 3 lemons. Measure ⅓ cup into saucepan with fruit.

Then make the jam. Measure sugar and set aside. Add Certo Crystals to fruit in saucepan and mix well. Place over high heat and stir until mixture comes to a hard boil. At once stir in sugar. Bring to a full rolling boil and boil hard 1 minute, stirring constantly. Remove from heat. Skim off foam with metal spoon. Then stir and skim by turns for 5 minutes to cool slightly, to prevent floating fruit. Ladle quickly into glasses. Cover jam at once with ⅛ inch hot paraffin.

Homemakers' Hints

When canning rhubarb, I put a large package of raspberry or strawberry jelly powder with the boiling rhubarb. This gives the rhubarb a nice pink color that will not fade in the winter months. — *Mrs. B. Hodgkins, Wellandport, Ont.*

Plastic garbage cans are wonderful outside toy barrels. They are not harmed by rain or dented if they get knocked around.—*Mrs. J. Ashton, Rosebud, Alta.*

Use the last bit of ketchup that clings to the bottle for flavor in French dressings. Pour oil, vinegar and seasonings into the bottle and shake the ingredients together. — *Julie Baird, Horse Head, Sask.*

When making popcorn balls, dip hands in cold water and then form the balls. I find this works better than putting butter on the hands and is not so messy.—*Mrs. Wallace McFaul, Piapot, Sask.*

A novel laundry or rag bag can be made by sewing shut the legs of a child's outgrown pyjama trousers or slacks. Insert a drawstring at the waist. An outgrown dress may be used by sewing up the bottom and inserting a drawstring at the neck. — *Mrs. A. Tobler, Patricia, Alta.*

Did you ever spatter paint on a favorite solid-colored blouse and find you couldn't get it off? Embroider solidly over the paint spots for flower centers, then add lazy-daisy stitches for petals and running stitch for stems to join the flowers. Instead of a ruined blouse, you will be the owner of an "original." — *Mrs. A. Fisher, Dorchester, N.B.*

When making butter tarts, put nuts, fruit or coconut directly into the tart tins. The liquid mixture can be added quickly and without drips and mess, by pouring it from a small pitcher. This also ensures that tarts are filled evenly. — *Mrs. C. Dafoe, Braneepeth, Sask.*

When cutting raised doughnuts, drop three centers into each buttered section of a muffin tin. This way you have both clover leaf rolls and doughnuts from the same batch.—*Miss Louise de Roequigny, St. Claude, Man.*

Stockings and socks will dry much more quickly if you run your hand through each one to the toe to separate them.

If cans of cleaning powder leave a ring of rust on the shelves, dip the bottoms in paraffin wax.—*Mrs. Will Nesbitt, Woodville, Ont.*

We're all interested in a better, quicker and easier way of doing household tasks. The Country Guide pays \$1 for each original hint published. We cannot accept previously published hints or return unused ones. Only those accompanied by a self-addressed, stamped envelope can be returned. Letters of comment are welcome; however, no payment is made for letters of comment or recipes.—*Ed.* V

COUNTRY GUIDE

Vol. 83, No. 8 — AUGUST 1964

THE FARM MAGAZINE

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CLIFF FAULKNER—Calgary, Alta.
PETER LEWINGTON—London, Ont.

Home and Family Section:

ELVA FLETCHER
GWEN LESLIE

In This Issue

In this issue of Country Guide, we're pleased to introduce to our young people a series of articles titled "Tips for Teen-Age Voters." These articles were written by Russell Doern, a 28-year-old high school teacher. They're the result of some lively classroom discussions on the recommendation now before a parliamentary committee that Canada's voting age be lowered to 18. Russell holds a Bachelor of Arts degree from the University of Manitoba. Now he is working on a thesis for his Master of Arts. Our series begins on page 40.



Russell Doern



Confined What?!!! Confining the lamb pictured here may present a problem. He will be sorry to hear that early weaning is also part of the program. Notwithstanding this little fellow's personal preference, in a special report in this issue staff writer Leo Quigley describes this new idea in sheep raising—confinement rearing. He suggests that it may mean a new lease on life for the faltering sheep industry.

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COVER: There are thrills for both young and old when sulkies take to the track during summer fair time. The pace is fast and excitement runs high as these horses head for home during Manitoba's Provincial Exhibition at Brandon.—Photo courtesy Manitoba Department of Industry and Commerce.

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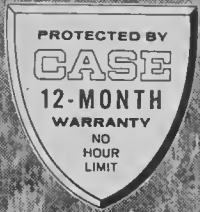
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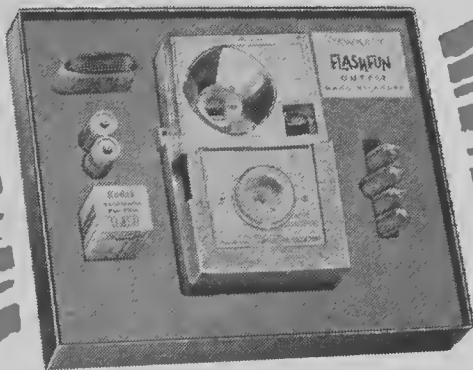
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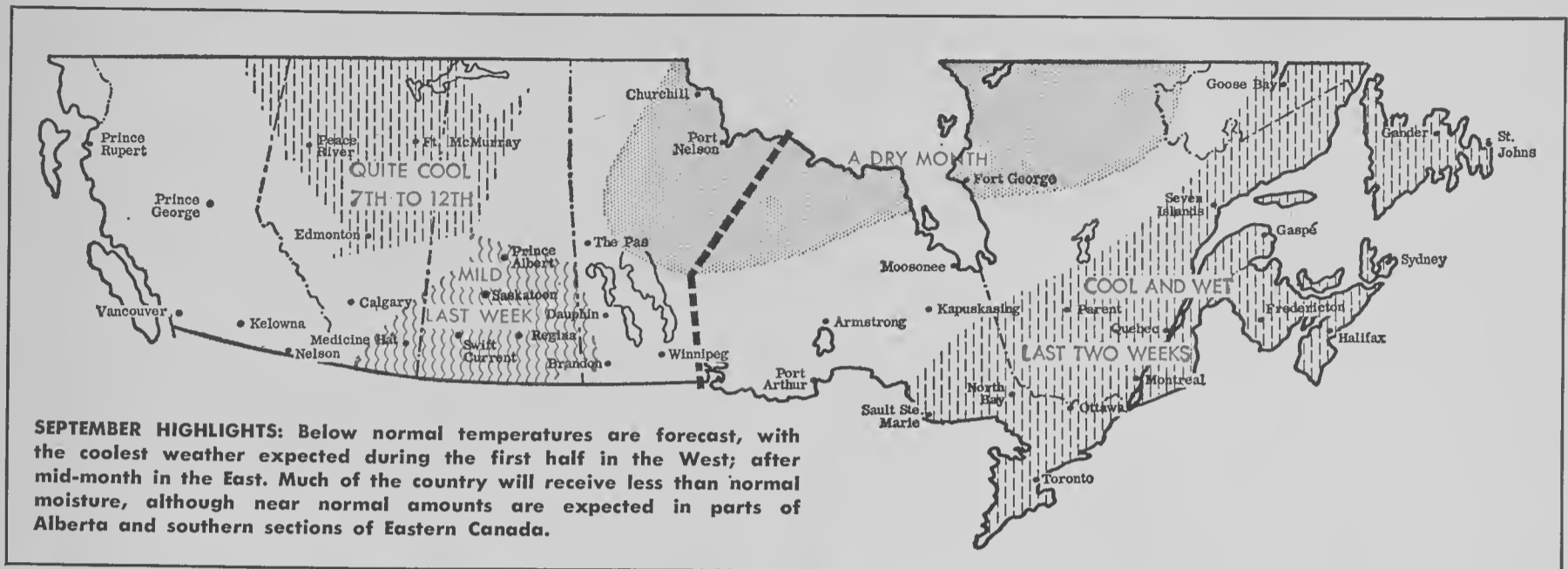


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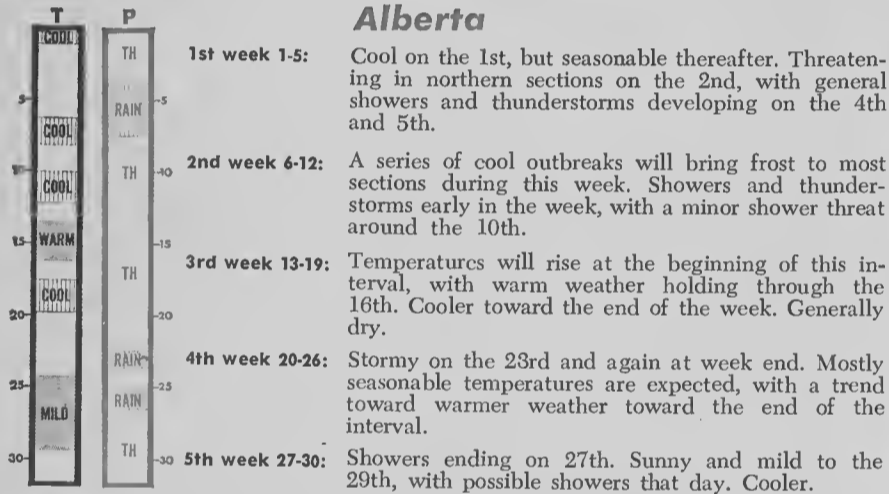




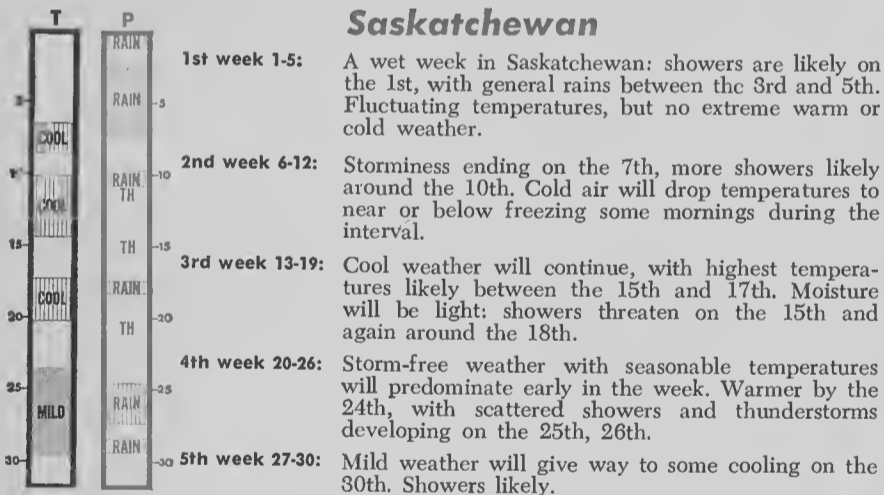
SEPTEMBER 1964

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

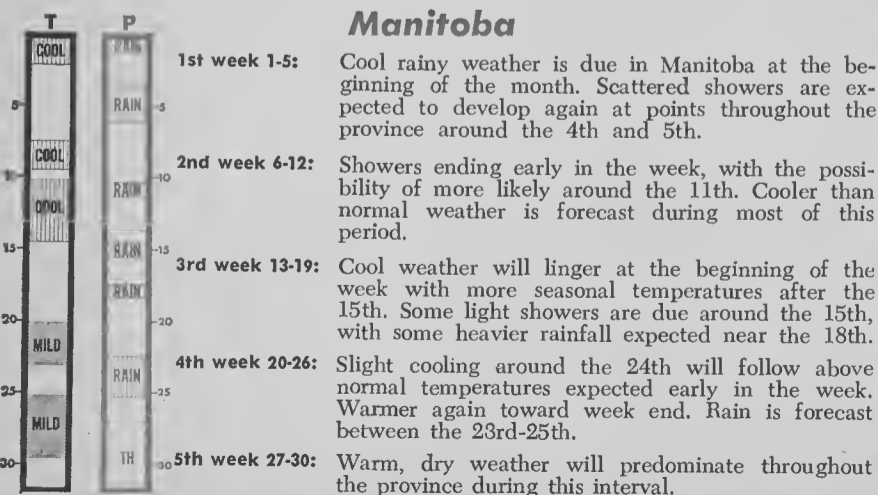
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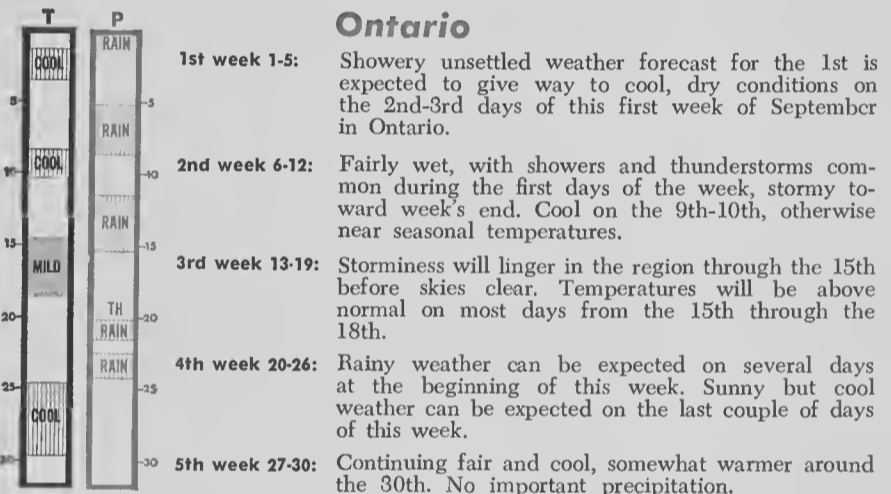
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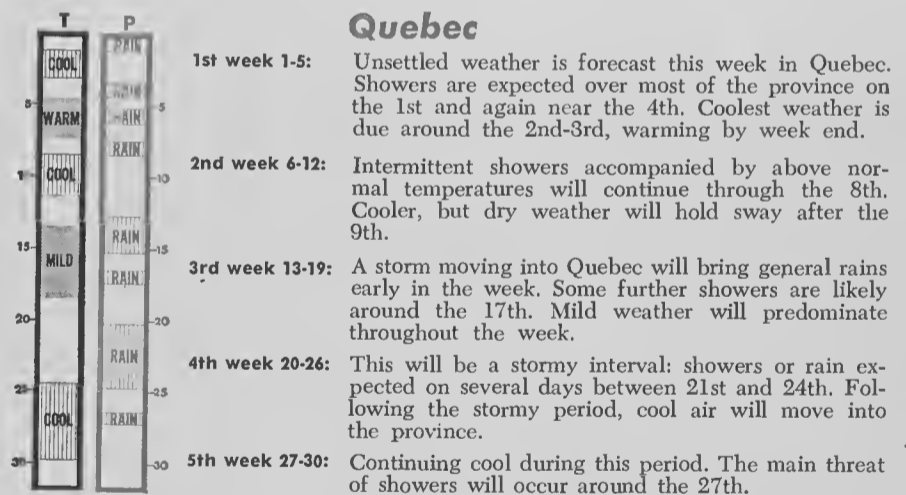
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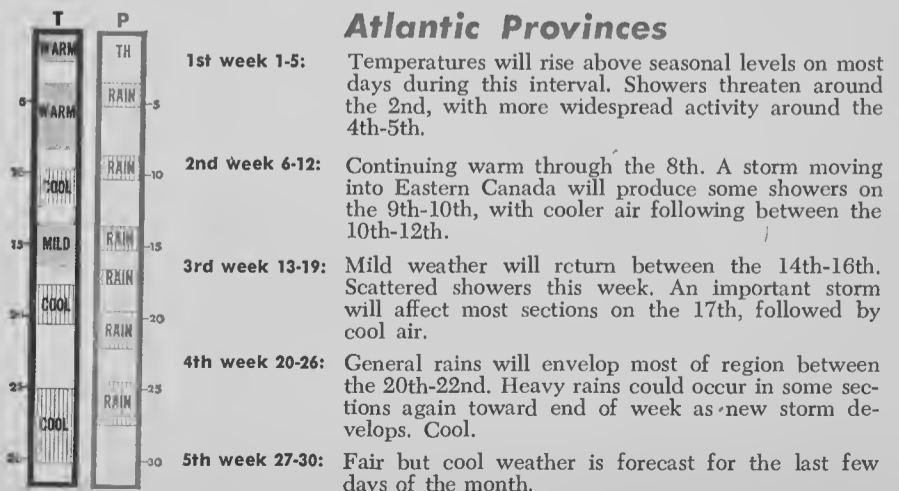
Ontario



Quebec



Atlantic Provinces



Key to Abbreviations: T, temperature; P, precipitation; CL, cooler; WM, warmer; TH, threatening; SH, showers; R-S, rain or snow.

Editorials

A Solution to the Farm Problem

FEW SUBJECTS HAVE been given as much publicity and attention and as little understanding in recent years as the farm problem. Governments and farm organizations have searched for solutions to it. Politicians have found it a ready topic for oratory. The subject has caused distrust and bitter feelings between city and farm people. It has been pictured by writers in city papers as symbolic of an inefficient agriculture—a problem which would solve itself if it were ignored. Many successful farmers have even refused to believe it was a reality.

For this reason the report of the Eastern Canada Farm Survey which was carried out in 1963, and presented to the House of Commons recently, is an important document.

This survey which was done by Hedlin-Menzies, a firm of economists, consisted of detailed interviews with 643 farmers in eastern Ontario, Quebec and the Maritimes. As tabled in the House, the report draws from the interviews to define the farm problem and it goes on to propose a course of action to deal with it. The report could provide this country with an opportunity at last to deal with one of its most troublesome issues.

The recommendations made will arouse a storm of protest in some circles, for they deal harshly with many sacred cows of agriculture. For instance, the report suggests that half of the farmers in the study area would be better off if they could get suitable training and then find employment off the farm.

The plight of many families on small, inefficient farms, is depicted in the report by referring to one in particular. It is not an average one but it does dramatize the need for help. It is a family in Quebec consisting of the parents and 19 children ranging in age from 9 to 39 years. Of the 16 children who have completed schooling, the average years in school was 5.7. Ten of the children have moved from the farm to neighboring towns and cities but all are unemployed. The two older girls have also left the farm. One is single and unemployed and the other is married and her husband is unemployed. Seven of the children are still at home. Yet the farm income on this farm in 1962 was \$2,304. It is a dramatic picture of the enormous waste of human resources that goes along with small, low-income farms.

The hard core of the farm problem was pin-pointed by Hedlin-Menzies as being on the small, inefficient farm in eastern Ontario, Quebec and the Maritimes, with the situation in Quebec worst of all. These areas, the report implies, can in no way be compared with the relatively prosperous and progressive farm areas of southern and western Ontario and the Prairie provinces.

For these small, low-income farms, the technological revolution in farming does not exist. Owners cannot and will likely never be able to afford the big tractors and combines or the new buildings and materials-handling equipment that are essential today.

Lack of education, of course, is a part of this problem. The educational picture in Quebec particularly, as revealed by the study, was bad. The average education of the children in the Quebec survey area who have completed their education is 7.6 years. This was somewhat better than the 5.9 years of schooling for their fathers and 6.7 years for their mothers. In eastern Ontario and the Maritimes, the picture was only slightly better. The average

years of schooling for farm operators there was only 8 years.

These conditions of poor education and poverty are persistent, state Hedlin-Menzies, continuing in these areas from generation to generation. The report goes on: "In failing to educate and train the young people from the small, low-income farms, the provinces and rural communities are creating a pool of unemployment, the cost of which will not constitute a charge on the farm communities but will become a serious social and economic problem of national significance."

It is not a pretty picture that emerges from the report. The economists suggest that the problem represented is so big that no solution is possible so long as it is dealt with as an agricultural problem.

It is on this premise that they make their most important recommendation — one which Country Guide can wholeheartedly endorse. Only half of the farms surveyed in this eastern Canadian problem area earned most of their income from the farm and can hope to make a satisfactory living on the farm. This means, they say, that it would be wise to re-define a farm, and as a result, the farm problem. Farms with a farm cash income of less than \$2,500, they suggested, should be defined as non-commercial. This would mean that the agricultural problem would then be identified as a national, economic problem — part of the problem of full employment and the efficient use of the nation's resources. The Department of Agriculture could then work with the Departments of Finance, Trade, Industry, Labor and Natural Resources in developing solutions.

Another and equally important benefit of such a re-definition would be that the Department of Agriculture would then be free to devote its energies to working with commercial farms and helping to make this nation's agriculture competitive with that of any other country in the world.

Protection Against Property Damage

MORE AND MORE FARMERS in recent years have been suffering inconvenience, cost, and disruption as pipe lines, hydro lines and roads have been put across their land. Too frequently they have been handicapped in dealing with those responsible for this encroachment. They have often had to deal with unscrupulous right-of-way agents, careless contractors, and contemptuous corporations. They have received indifferent legal advice and faced courts which seemed to present a parody of justice. Such experiences have left many bewildered farmers wondering whether in fact they had any rights at all.

There are, of course, rights which the farmer can exercise but he can only do this if he knows what they are. A new booklet published by the Ontario Federation of Agriculture, provides helpful advice in dealing with this kind of situation. It should also be welcomed by any corporation or any level of government which desires to settle claims for damage on an honorable and fair basis.

It was several years ago that the OFA set up a properties department which has been largely concerned with the expropriation of farm lands. It found that one of the harder problems to resolve satisfactorily in such cases was that of damage. As a result, Don Middleton, Director of Properties for OFA, prepared

It becomes apparent, on studying the survey results, that policies such as price supports designed to help commercial farms, cannot be of use to small, low-income farms — that continuing attempts to deal with the low-income farm as an agricultural problem will leave this country paying the inevitable costs of failure represented by such national, social and economic measures as unemployment insurance and welfare payments.

The survey showed too, how high these costs have become. Almost half of the cash receipts of farmers with farm incomes of less than \$2,500 came from off-farm earnings and from family allowances, old age pensions, welfare payments and similar social payments.

The report proposes methods by which residents of low-income farms could be moved. Obviously, these people must be able to sell their farms.

This country's ARDA program could logically be involved. There are likely to be potential buyers and potential sellers within many of the communities. Some public program could be designed to bring the two parties together by which one could take over the other's farm, creating an economic unit. The public body involved would provide the necessary capital so that the seller could be paid and the buyer could take possession. The community might need to become a land banker to hold land for subsequent economic use if a buyer is not readily available. The report goes on to state, "A crown corporation that would purchase land and either sell it on long term agreement to farmers who could use it to round out an economic farming operation, or divert the land for other purposes such as tourism or recreation, could be a very useful addition to such agricultural adjustment tools as ARDA, Farm Credit Corporation and others."

Clearly, this report of the Eastern Canada Farm Survey is one that merits consideration by all branches of agriculture and government. If this country's politicians and farm organizations and governments can face the fact that it is not necessarily good to keep everyone on the farm, and realize that the people themselves in many cases would be far better off under other circumstances, then it might be possible to take the necessary steps to deal with rural problem areas. V

and released this booklet which is called "Damage."

The new booklet advises farmers to record accurately every phase of the negotiations that take place when public utilities are to be laid across their land, and to document each act of damage. Having done this, land owners will be in a position to prepare a precise statement of claim.

In theory, the vaunted scales of justice are finely balanced but in actual practice they are not. During the period of negotiation, expropriation and construction, a farmer will go through a period of severe strain above and beyond that of a full day's work. Too frequently he will be driven to regard the expropriating body as one that is in opposition to him. He will likely find that this body will have access to knowledge and manpower superior to his own.

By following the advice in this new booklet and by recording each and every event within the boundaries of his own line fences, a farmer can help the honest investigator of claims and he can undo the dishonest one. In the event of damage, a farmer is entitled to compensation. The onus is upon him to prove that damage did occur and to substantiate his claim. This new booklet is a useful tool to help him do this job. V

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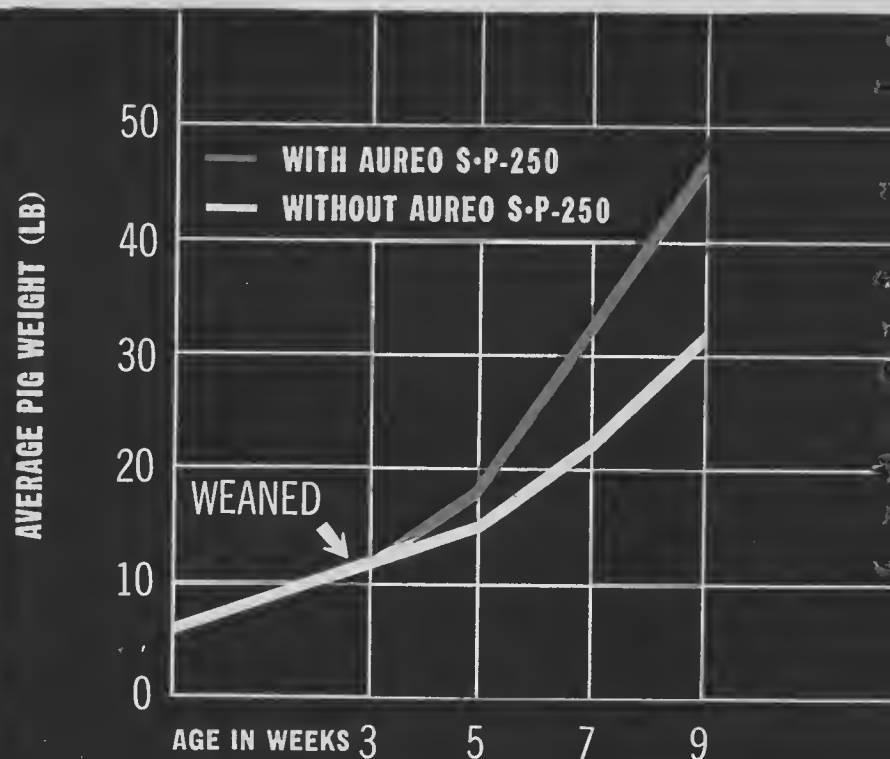
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The Hedlin-Menzies Report

It pinpoints the farm problem, urges that government departments other than agriculture co-operate to deal with it

by JACK McPHERSON

IF SUITABLE alternative employment were provided, about half the farmers in Eastern Canada could leave farming to their own benefit and to the net gain of the rest of the farming community and the national economy. This is a leading observation in a report on the Eastern Canada Farm Survey conducted in 1963 by Hedlin-Menzies—a firm of agricultural consultants. The survey was commissioned prior to the last Federal election by the then Minister of Agriculture, the Hon. Alvin Hamilton. The report was completed more than a year ago but was made public only in June with its tabling in the House of Commons by the Minister of Agriculture.

The report notes that one of the problems is farm size. Few farmers in the study who had less than 100 acres were earning a decent living . . . and the seriousness of the problem is indicated by the fact that the average Quebec farm in the study areas had 78 improved acres while in Nova Scotia it was 83. The report states that policies are needed to deal specifically with such farms.

One of the difficulties in achieving a movement of the low-income farmers from the land, and making their farms available to enlarge and improve the remaining farms, is lack of education. The survey indicated that the level of public school education of farm children in Eastern Canada is low and particularly so in Quebec. Moreover, the survey says that in all provinces the children getting the least schooling were those on the low-income farms.

Still on education, the report notes that compared with urban areas, all eastern provinces are failing to provide the additional technical training to farm young people that is necessary if they are to fit into the rapidly changing economic world of today. Again it is noted that the record of Quebec in providing special training of various kinds is less favorable than the other four provinces.

Because poorer farms tend to be those where the least education is obtained, the report points out that they are a source of a continuous flow of uneducated and unskilled persons to the towns—and these are the people who become the hard core of the unemployed and inhabitants of the slums.

For this reason the consultants feel that the whole farm problem needs redefining. They suggest that all farms with income of less than \$2,500 should be considered non-commercial. From the viewpoint of policy, the solution to re-allocating and re-employing both the human and other resources of these uneconomic farms becomes part of a national problem to be tackled by the joint efforts of departments such as Finance, Industry, Labor and National Resources as well as Agriculture. By implication, this would

leave the Department of Agriculture more opportunity to deal with the problems of the commercial farmers.

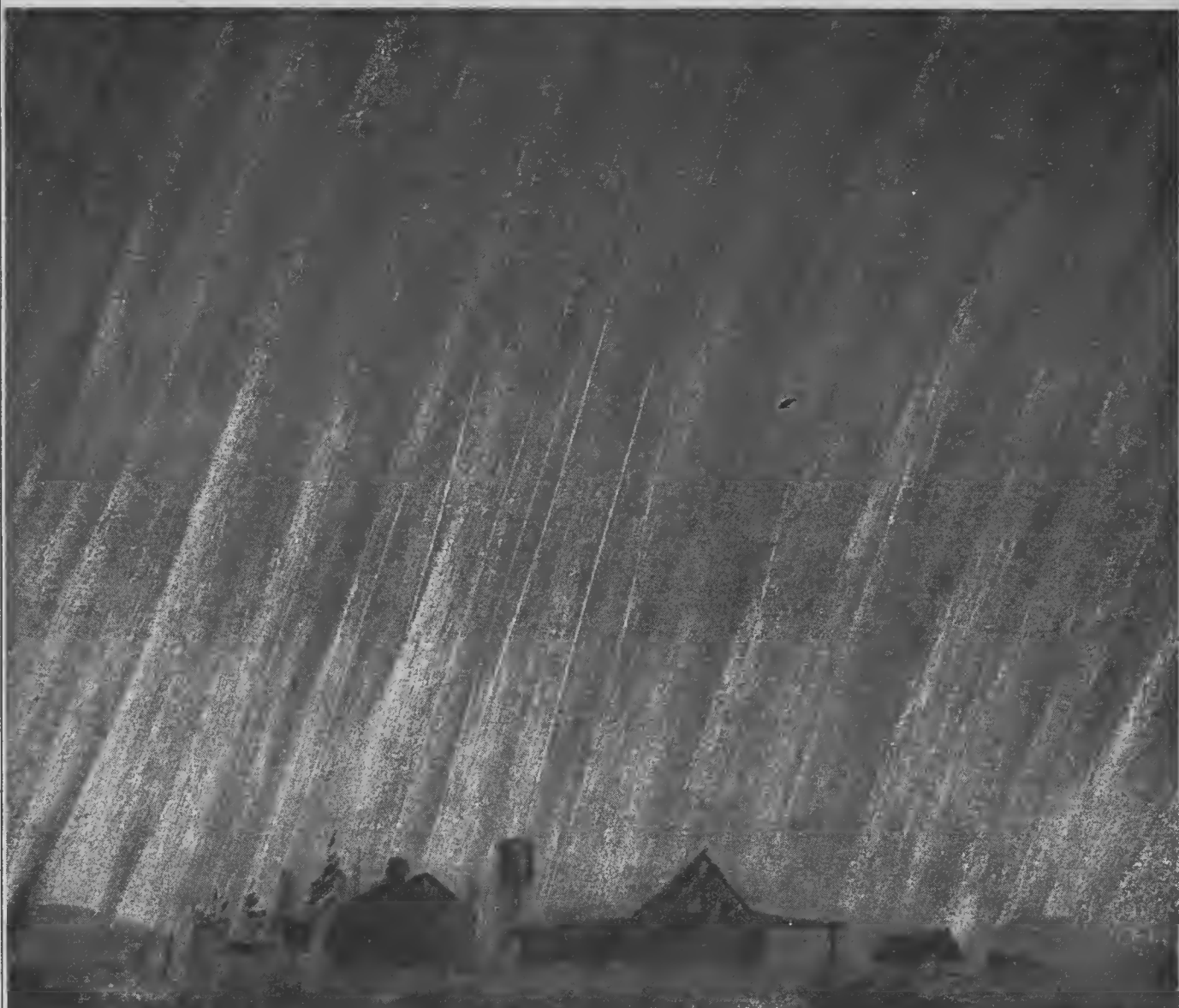
Even the groups of farmers who would stay in commercial farming will require policy designed to make this possible, according to the report. Expansion of farm size, which

the consultants indicated was essential in many cases, requires greater resources than most operators have at hand. It is in the interests of the buyer, seller and the national economy to develop policies which will make possible the consolidation of farm holdings in Eastern Canada.

In view of the great amount of discussion on feed grain policies a section reviews the picture. The conclusion is that complaints about feed grains mask a more fundamental protest against inadequate farm income. The consultants say this is borne out by the fact that Eastern farmers complain more

about feed grains in the poorer farming areas than they do in areas where farm incomes are relatively better. This is particularly true in Quebec, where according to the consultants, a large part of the Eastern Canada farm problem is concentrated.

They state that there is need for new feed grain policies, but that these must be related to overall farm policy aimed at correcting income problems of Eastern Canada. A direct attack on the feed grain problem may help somewhat but it will not correct the problem which lies deeper than simply feed costs. V



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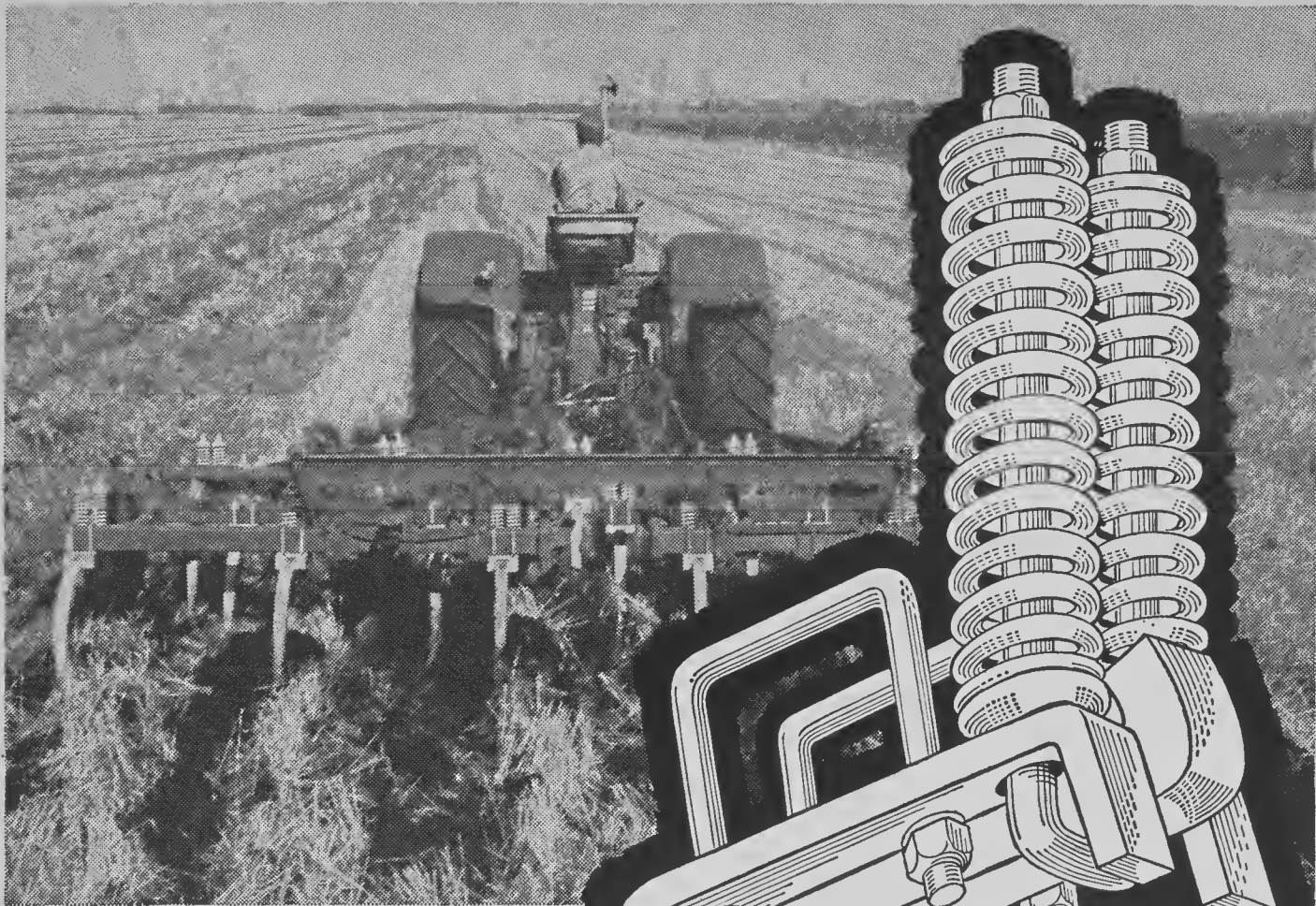
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ROD WEEDERS

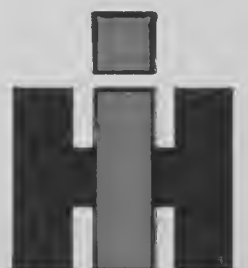
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Rotary ditcher (for irrigation or drainage) on Kaj Tajiri farm



Aerial spraying on farm of Kanegawa Bros.

Potato Industry in Change

LAST MONTH, 360 delegates representing all parts of the \$70 million Canadian potato industry, and many potato growing areas of the United States, met in Lethbridge, Alta., for the 7th Annual Canadian Potato Industry Conference. For the first time, the 3-day conference sponsored by the Canadian Horticultural Council featured potato production under irrigation.

Keynote speaker, R. E. Goodin, market development specialist, Ontario Department of Agriculture, pointed out that potato marketing has not kept pace with progress made in production and distribution. Sharply fluctuating prices — characterized by high prices at the start of the season and very low prices in the fall when supplies are plentiful — are creating an unstable market for producers. Mr. Goodin also hit at unscrupulous sales practices such as cut-throat advertising, special discounts, stamp programs and loss leaders, which are all too evident in today's market place.

Highlight of the conference was an all-day bus tour through the heart of southern Alberta's million-acre irrigation belt. Delegates first visited the Provincial Horticultural Station at Brooks. In the Vauxhall area, they inspected large-scale storage facilities (4,600 tons) on the farm of Tom Tajiri and K. Kitagawa, saw irrigation and spray equipment in operation on the Kaj Tajiri farm and viewed aerial spraying and potato harvesting on the Kanegawa brothers' farm.—C.V.F. V

(BELOW) Potato harvester operating on Kanegawa farm. (BELOW, RIGHT) 2,300-ton patent shingle-roofed frame potato storage cost \$16,000. It is on farm of Tom Tajiri and K. Kitagawa

Sprayer with inverted teardrop discharge head on Tajiri farm

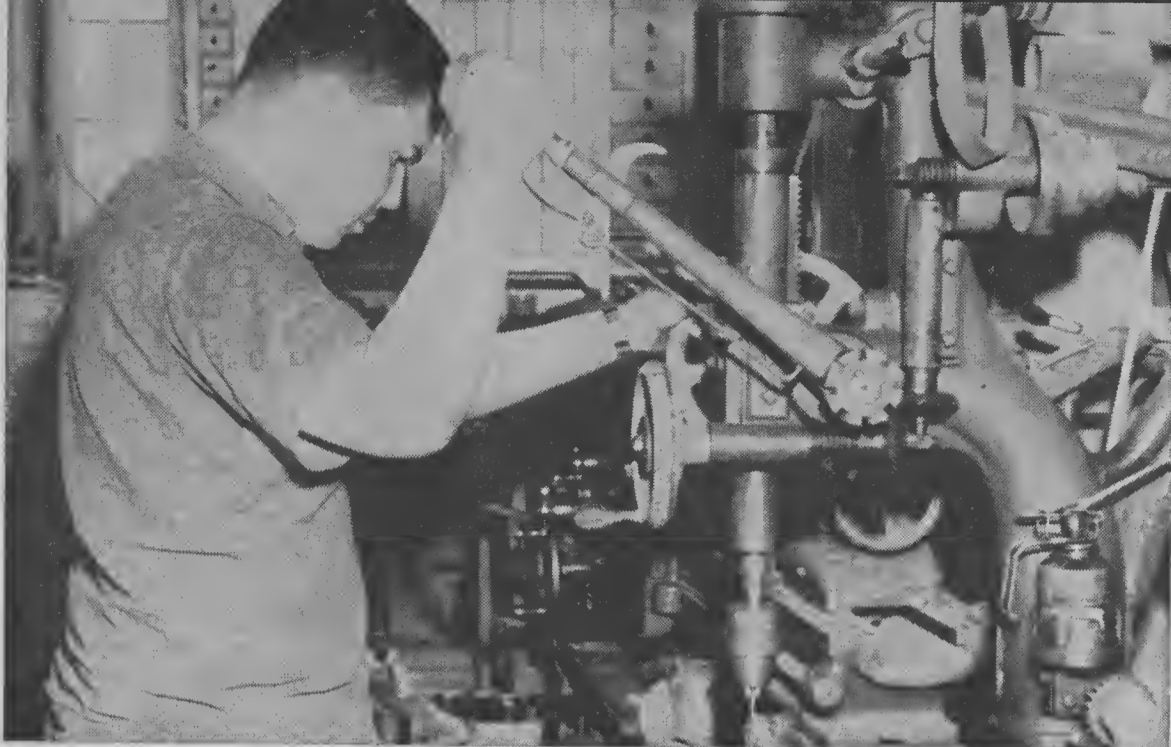


Large boom-type sprinkler pours water onto Tajiri's potatoes

Easily propelled aluminum sprinkler line on Tajiri farm

[Gulde photos]



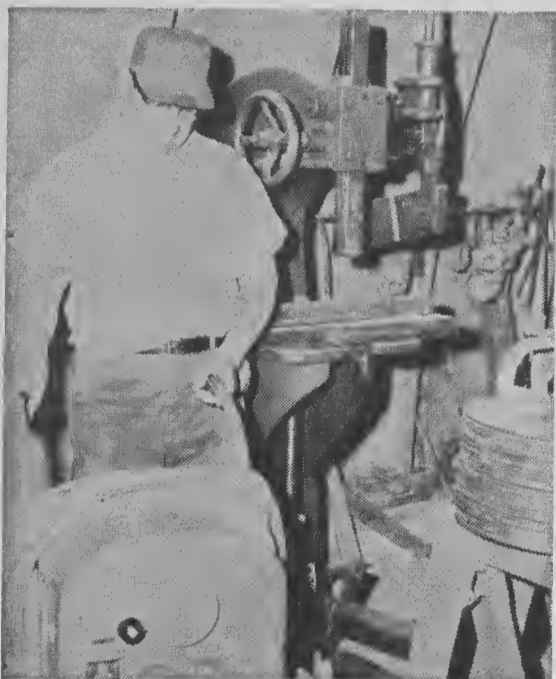


Doug Schneider is now a press drill operator in the farm shop which his father has converted to house a farm implement manufacturing business. The Schneiders farm west of Eston, Sask. [Guide photos]

Fred Schneider has turned his family farm into a part-time family factory. He and his boys farm 2½ sections, while making various items of machinery in the well-equipped shop

This Farm Shop Became a Factory

by **CLIFF FAULKNER**
Field Editor



A mobile welding unit is a handy tool for Fred Schneider. The discs at right are field markers

AS FAR AS I KNOW Fred J. Schneider has never built a better mouse trap, but he has built some pretty efficient farm machinery. And because of this, the farm machinery world has literally beaten a path to his door. Some of the products of his farm machine shop have been ogled, sketched, photographed and measured as often as a Hollywood screen star.

Fred farms 2½ sections just west of Eston, Sask., with the help of his three sons, Douglas, Dennis and Murray. During the winter, the family lives in Saskatoon where Doug and Dennis attend University. Every spring they move back to the farm. Mr. and Mrs. Schneider occupy a big "mobile home" type of trailer, while the boys bunk in a small farm house nearby.

The Schneiders adapt their cropping program to market conditions. At the present time they are raising wheat and flax. During the wheat glut when their grain storage facilities became overtaxed they switched to rapeseed and field peas.

"Field peas grow well here, but it's hard to hold the soil after a pea crop because it leaves no trash on the field," Fred explained. "The stems break and the vines blow away. We put a chopper on the harvester and tried to get the trash in but

it didn't work too well. Of course, we had lots of chances to bale the vines and sell them as feed, or we could've burned them. But we haven't burned our straw or any crop residue for 13 years. We like to keep our topsoil on the farm where it belongs."

The Schneiders keep no livestock. Fred regrets this because he was raised on a livestock farm, but he feels his present place isn't suited to it. A man has to adapt his program to conditions on his farm.

"We have no pasture, no waste land here," he pointed out.

Born in Wolseley, Sask., Fred Schneider came to the Eston-Madison area in 1936. He rented a place near Madison for several years before buying his present farm in 1943. Since then the old buildings on the farm have been replaced by four large Quonsets, which the Schneiders built themselves. Three are used for machinery storage (or grain if needed) and the fourth contains the machine shop — the most important building on the farm.

Fred stopped using the shop as a mere repair depot years ago and began to turn out equipment adapted to his own special needs. His first piece of major equipment was a 24-ft. seeder that drops the seed right down behind the blade instead of drilling it into the soil. Built in 1946, this machine was completely farm made, including the spouts. The only outside help needed was to shape the seed box, and to make one or two heavy castings. It was tested by the late Prof. E. A. Hardy at the University of Saskatchewan, and was the forerunner of many of its kind.

"When I built that I didn't have the well-equipped machine shop I have today," Fred Schneider smiled. "But it's still doing all our seeding. It's the only seeder we have on the place. We use it for flax, rape, peas, wheat, durum and barley. Last year, it ran right around the clock for 3 days straight with no stops or misses."

The machine took 6 weeks to design and build. It has a power lift and depth control.

Another favorite machine built on the farm is a 40-foot-wide packer that carries a set of harrows which can be hooked on the front end. This has three rotary-type packer units that firm the soil



Murray Schneider is shown operating a king-size "hacksaw" in his father's small factory



Dennis Schneider is about to weld a part for a farm-made marker which prevents overlapping



This spray pump is used to operate an 80-ft. boom sprayer manufactured in the farm shop

for better seed germination but don't pulverize it so that it blows easily. The two rear packer units can be unhooked by simply pulling a pin, and moved in behind the leading unit so the equipment is narrow enough for road transport.

"I built the first one in 1947," said Fred, "then I had to quit because the wheels were so hard to get. I could've sold 30 of them right in this district this year if I'd had them made."

One piece of equipment the Schneiders intend to turn out in quantity this year is a ball-bearing mounted field marker for use on weed sprayers, cultivators, rod weeders and seeders to eliminate overlapping. It has a disc axle which adjusts to soil conditions, and can be placed on either the left or right side of an implement. "These markers just make a light depression with their rubber tires," Fred told Country Guide. "They don't dig into the soil or slash the crop. They will operate smoothly hooked to a truck at speeds up to 15 miles per hour. We had 10 of them out on test last spring so we know what they'll do."

Schneider expected to have 100 of them ready before spraying time rolled around, and to make 1,000 this summer. He figures these shop projects are good training for the boys until they decide what they want to do.

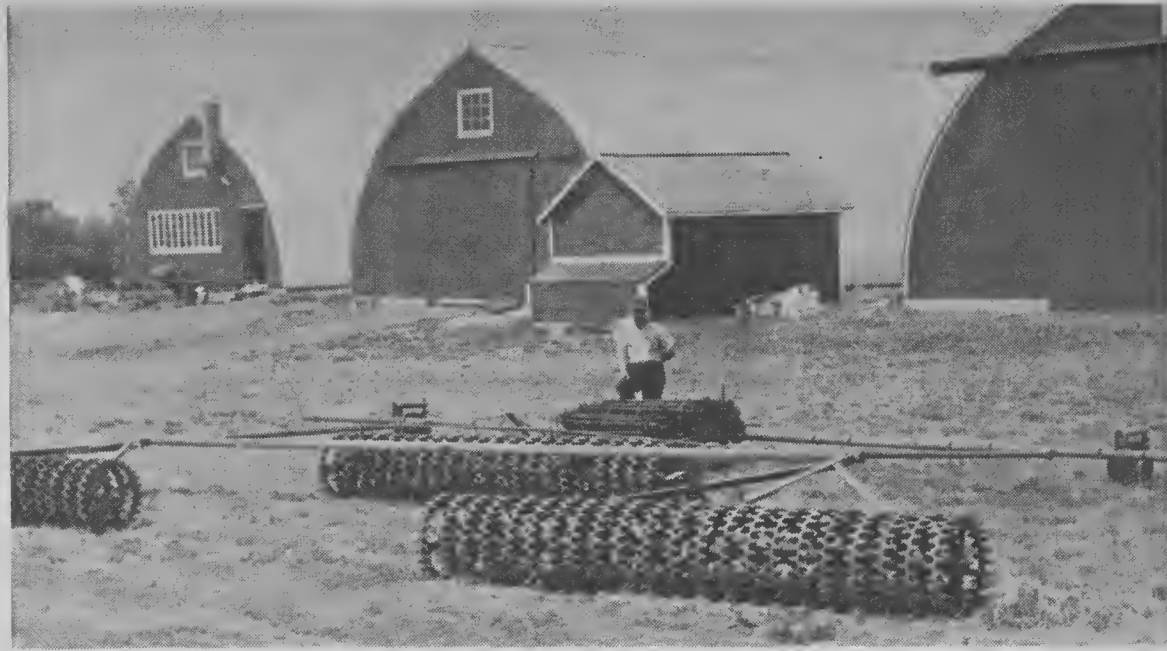
Fred has built a field sprayer with a boom spread of 80 feet. The 300-gallon tank is low slung so that it can be gravity filled from a tank truck. A gauge on the front of the tank tells the operator when to refill, and the tank trailer has an adjustable axle so it can be adjusted to the tank's weight. There is a large caster wheel on each end of the heavy boom to keep the latter from whipping.

"On most manufactured models the boom is too light," Schneider said.

Another piece of heavy equipment on the farm is a rod weeder made in two sections. Each has a pair of wheels that ride up on the frame during field operations, but can be lowered easily when the machine has to be moved on the road.



The large capacity sprayer tank is low slung for gravity filling from truck-mounted tanks



This farm-built harrow-packer carries the harrow units on the front end when it is not in use. For road transport, the rear packer units are unhitched and attached behind the front units

Among the many small items made are light-weight pickup guards for standard grain combines which permit the harvest of tricky crops such as field peas. These are attached with a single bolt and ride right on the ground.

The Schneiders built their own augers, 6" and 10" models, equipped with starters, motors and lights. Having lights right on the auger means the operator doesn't have to use his truck lights for this job. The extra capacity of the big 10" auger eliminates one truck during harvest operations. Being geared to run the whole night through, the Schneiders can get the job done without buying an extra combine. Last year, Fred and the boys harvested 1,060 acres of crop without any additional help. They combined for 5 straight nights.

"We are able to do this because our equipment matches," Fred explained. "That is to say, the capacity of one machine matches that of the other. When we found a 16-foot swather couldn't keep up with our combine we built a 20-foot swather. Everything is gauged so that one man can take care of each phase of the work."

The Schneider farm has a grain storage capacity of about 36,000 bushels. Field granaries are lined up in a staggered formation so truck loads of grain can be backed in closer to the loading hatches on the roof of each structure. This means a 30-foot auger can be used in place of a 40-foot one to fill the granaries. The staggered formation also gives better protection when loading or unloading on windy days. When a Quonset is used for grain storage it is filled with an auger which is suspended from an old hay track attached to the ceiling of the building. During the wheat glut, even the farm machine shop was full of wheat for about 4 years.

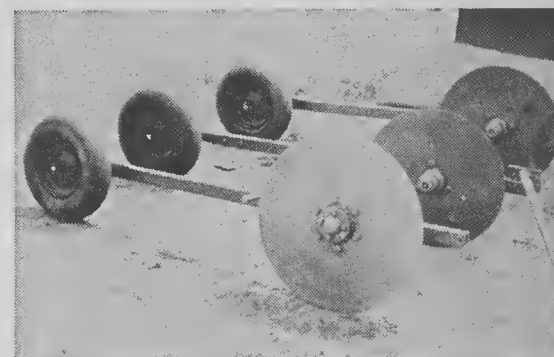
If one word could describe the Schneider operation it would be "versatility." There are special fittings or attachments that can adapt standard machines to almost any use. This makes it easy for the Schneiders to switch to other crops if the grain market slows down. V



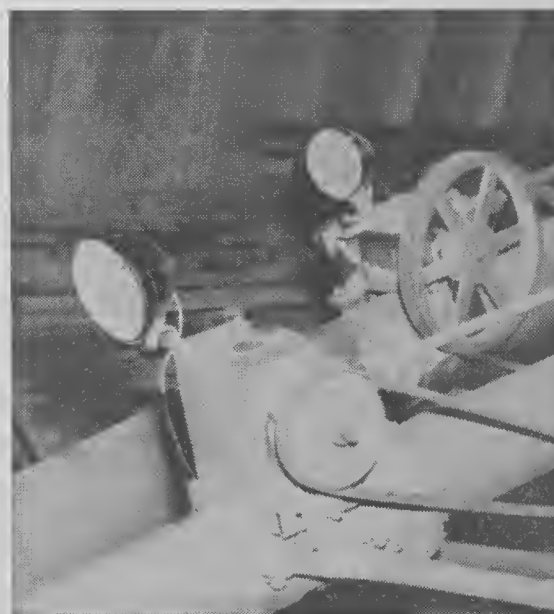
This farm-made rod weeder comes with wheels that let down for road transport when moving



Staggering granaries allows them to be filled through the roof hatches with shorter augers



Rubber tires on the field markers make a light depression without slashing crop or digging soil



The 6-inch and 10-inch augers which they build have lights which are used for night operating

Associate breeder
Ross Nichol's first litter
at 6 days of age.
The sow is a
Lacombe-Yorkshire
while the pigs, which
will be fed to market,
are a Yorkshire
backcross

[Guide photos



GRADE A HOGS —GUARANTEED!

Because of Charlie Thomas' carefully planned hog-breeding program and his novel way of working with his associate breeders, hogmen can now buy weaners that are guaranteed to produce A grade carcasses

SWINE BREEDER Charlie Thomas of Brussels, Ont., cheerfully admits that he has yet to make his first dime out of hogs. Nevertheless, he is confident now that his well planned hog enterprise will begin to pay off. The reason is not hard to find; weanling pigs produced under his careful breeding program are being sold to farmers with a guarantee of their final grading. If the pigs are fed entirely at the purchaser's discretion, 80 per cent are guaranteed to grade A; if the pigs are on a restricted feeding system, 100 per cent A hogs are guaranteed. If any fail to grade A, there is a rebate to the purchaser to make up the price differential between grades.

This is the sort of advance the swine industry needs in its search for better pigs and more saleable hog products. It is made possible because Thomas has absolute faith in the breeding stock which he supplies to his associate breeders who actually guarantee the weanling pigs. A sweeping guarantee of this caliber illustrates a confidence in the entire breeding program and the little pigs which it produces.

When Thomas forsook the life of an RCAF jet pilot for that of a farmer he relied on some fairly common farming practices for his bread and butter. He produced grain corn, grew ready-to-lay pullets, and sold hybrid chicks and seed corn. His long range plan was to become a breeder of premium hogs. For 5 years, he sacrificed ready income to this end. He selected and tested his pigs carefully and culled them ruthlessly. He kept constantly in his mind that success of his program was dependent upon selection of desirable strains and breeds, in sufficient numbers, to operate a closed breeding herd from the beginning.

Thomas recalls, "I've always been interested in animal breeding. I couldn't see a future in poultry as this is already controlled by the big people." He adds, "I believe that pig breeding is going in the same direction as poultry breeding with the maintenance of pure lines within breeds and the selective crossings of inbred lines."

ASSOCIATE BREEDERS

Thomas has 12 boars in service. These would enable him to carry on a larger breeding program than the 70-sow herd would indicate. However, a complete three-way crossbreeding program, including production and sale of weaner pigs for feeding, was far beyond his resources. He overcame this hurdle by bringing in "associate breeders" who purchase Lacombe X York sows from him and breed them to York boars leased from him. It is these associate breeders who produce, and guarantee, the weaner pigs. The first 36 pigs from this complex breeding program have just gone to market and 35 graded A. This means that Thomas' planning has begun to pay off. He can turn it into a commercial enterprise now. This is a milestone but not a final objective. The breeding and research end of such a concept of hog production must be constantly refined and improved.

Thomas began with SPF Lacombe and Yorkshires. While he has not participated in the official Ontario Specific Pathogen Free program, head and lung examinations indicate that his pigs are still free of both atrophic rhinitis and virus pneumonia. "We intend," says Thomas, "to make every effort to remain free of these two diseases through sanitation and good ventilation. However, breeding stock should not only be free of the major diseases, but also resistant to intestinal diseases such as scours. Although commercial hog growers should be scrupulously clean and careful, I still like to subject foundation breeding stock to some stress. Disease resistance is a heritable characteristic. I want to develop strains that will do well under practical farm conditions."

Selection for disease resistance is in itself an ambitious project. Dr. Elwood Stringam, Head of Animal Science at the University of Manitoba, observes, "Some disease resistance can be developed but this will not be complete. It is, however, an important objective when, for instance, we appreciate not only that we haven't

by **PETER LEWINGTON**

Field Editor

developed a vaccine for virus pneumonia but also that we are unlikely to be successful in developing one. The long range answer to disease problems is to develop resistance. Ultimately we are going to have to select for it."

Thomas has no illusions about the difficulties involved in his program of breeding and selection. When you select for disease resistance, days to market, feed conversion, back fat and final grading you are involved in "one heck of a lot of culling." Every animal is tested and if there is no room at the official test station, testing is done on the farm.

TWO WHITE BREEDS

Thomas has selected two white breeds for his crossbreeding program; the Lacombe because "it is a ready-made pig for crossbreeding work" and the York "as it is this country's most popular breed, and this allows wide selection for foundation stock. Also, the York provides maximum



Charlie Thomas is steadily refining the desirable characteristics of his pure Lacombe and pure Yorkshire strains for two- and three-way crosses

hybrid vigor as it is not one of the breeds used in the development of the Lacombe."

Landrace will be added when Thomas finds the stock which he thinks will be useful in his crossbreeding program. As the basis of his breeding program, Thomas selects strains of purebreds from these breeds with common characteristics. He defines a strain as "a group of purebred animals of sufficient numbers that selecting can be done within that strain without either excessive inbreeding or the introduction of new blood." A strain might be 60 sows and 5 boars or 12 sows and 3 boars.

Thomas believes that hogmen who turn to crossbreeding, do it with the hope of using two or more established breeds to produce stock with hybrid vigor and quality superior to any of the parent stock. It is not sufficient, he says, to breed good stock to poor stock. The results will be only mediocre. The progeny of a good boar bred to a

NUMBERED STRAINS

Thomas numbers his strains for identification purposes and pigs from them are similar as the foundation stock is kept pure. As with corn and chick varieties there are certain advantages and disadvantages associated with each one. Thomas' "100 series," for instance, is bred to produce a carcass on corn and concentrate that will grade "A" at 150 days.

Thomas sells sows to the associate breeders for \$200 a piece, and he leases boars to them. In this way, he recoups some of his high breeding costs and still retains control of the program. Associate breeders must come back to him for breeding stock replacements.

Bruce Falconer at Blyth was the first associate breeder. After a disastrous fire last year, Falconer cast around for a new start with swine and liked the look of this new program. He had a 32' x 112' barn in operation by November 1963 and another similar structure by June

weeks—providing they weigh a minimum of 35 pounds.

Providing feed and water to the pigs early in their lives reduces any possible setback at weaning. However, the main advantages in early weaning lie in the more efficient use of the sow — the expensive item in this specialized business. When pigs are weaned early, the sow is not dragged down in condition. She can be rebred early and will produce up to two and a half litters a year. There are indications that the productive life of a sow is extended by early weaning. Thomas' associate breeders, who produce the little pigs, should clear \$100 per sow per year, even if the sow is depreciated over an unrealistically short 3-year period. However, his margin of profit will depend on the caliber of little pigs weaned. "I inspect every pig before it is sold," explains Thomas. "Rejects are ear notched and not offered for sale under our guarantee. The rest are tattooed and sold under a brand name as 'Nu-Teck series 100.' Other series will be developed in time." All guaranteed pigs sell for \$15 and there is a waiting list of buyers.

Ross Nichol has laid out some \$8,000 to get into business as an associate breeder and is undeterred by the prospect of backing a guarantee. "I have very little gamble," he says. "Charlie Thomas has taken out the risks through the success of his breeding and selection program."

Thomas is confident of the overall success of this swine development program and sums up the situation in this manner. "We know what the feed conversion and the number of days to maturity should be under good conditions; we also know that the individual feeder can spoil them through poor management practices. However, he can't spoil the grade if the pig is bred to grade A when fed to the maximum on a high energy feed."



Thomas watches
Ross Nichol
inject a pig
with iron

poor sow will be inferior to that good boar. Superior blood may be lost in such a process. In Thomas' program, there is no inbreeding within the strain initially. Later, after a great deal of culling and selection, inbreeding is intensified to fix the desirable characteristics. Thomas uses his records to select within the strains for hogs which are homozygous — those which will tend to breed true for the desired characteristics. The more heterozygous strains, or those which do not breed true to type, may span the scale of characteristics from good to bad. It is hogs from the upper end of this scale which are further selected for a desirable and homozygous strain.

Inbreeding is a useful tool of the breeder but it has to be used with restraint. Inbreeding encourages the pairing of like genes — these may be good or bad. The most obvious danger of inbreeding is the reduction of reproductive efficiency.

of this year. With only 50 acres of land, Falconer has to rely on a high output of livestock. He is aiming at 100 brood sows. Another associate breeder is Ross Nichol of Brussels. The production of weaner pigs for Nichol is a profitable secondary enterprise, as he also feeds stocker calves on his 150 acres. His new farrowing barn is a clean, well-ventilated building with room for 21 to 24 brood sows. A partition can be slipped into each pen to make a temporary farrowing crate; the pigs get away to a good start with a heated creep area with crumble feed and medicated water.

EARLY WEANING

As with all pigs in the program, early weaning is the rule at Nichol's. From the day the little pigs are born they have access to water and from about the fifth day they begin to eat the pre-starter crumbles. At 3 weeks they are taken off the sow and are ready for sale at about 6

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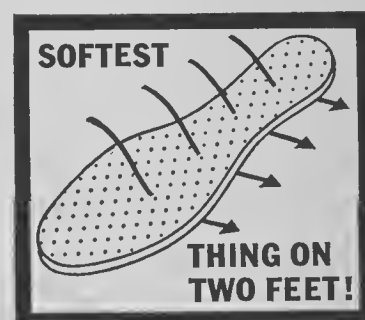
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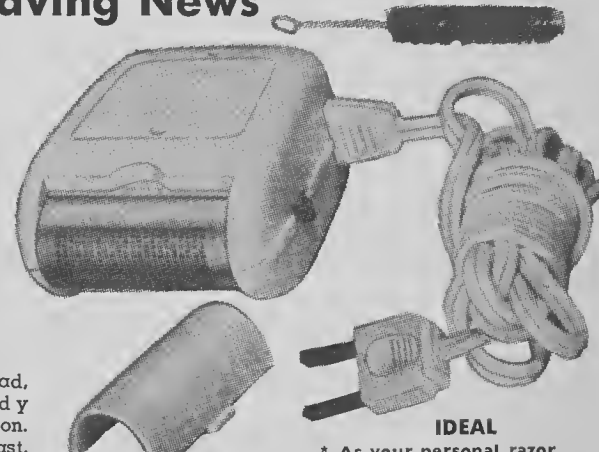
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- **1½ lamb crops per year**
- **choice market lambs at 120 days old**
- **labor return per ewe of \$26.76 rather than \$15.06**

by LEO QUIGLEY

SHEEP RAISING has traditionally involved costly and troublesome programs of building fences, controlling worms and ticks, and protecting the flock from predators. These problems and the fact that sheep have the habit of lambing on the coldest night of the year, and often need to be sheared in cold, rainy weather has been enough to discourage most prospective shepherds.

Today, however, a few people who are interested in sheep have found

In a nutshell, here is their program, and what they have accomplished:

- **Weaned lambs at 1½ to 2 months of age.**
- **Fed them a special high energy ration free choice.**
- **Lambs went to market early—at 4 to 4½ months of age.**
- **Of the first 90 lambs marketed this year, 93.3 per cent graded Choice.**
- **Government premiums on them of \$2 on Choice, \$1 on Good, totalled \$165.**
- **Some of the ewes which lambed in January have been rebred and they are lambing again this month.**
- **43 ewe lambs from the spring crop have been retained for the ewe flock (they were sired by a Dorset ram) and are being bred to an Oxford ram.**

a way to beat most of these problems. Their technique is to raise the sheep under confined or dry-lot conditions. Sheepmen in Canada and other countries, such as Britain, have turned to confinement rearing—raising lambs right from birth to market around the farm buildings and without turning them to pasture.

Two pioneers of this change have been Linden Penner and Abe Harder of Steinbach, Man. Three years ago they formed a partnership and bought 50 ewes. They planned to raise these sheep in confinement. For a time they had so much trouble that they were ready to give it up. Today, however, they have 200 sheep housed in a new barn, and the program is beginning to pay off.

Disease has not been a problem for Abe Harder. In fact, confinement rearing seems to beat many sheep diseases. Clean, non-contaminated feed is supplied each day. The sheep never get out to graze on worm-contaminated pasture, and worms are virtually eliminated. There are other advantages also. There is little danger of bloat because the sheep are never on pasture, but are on dry feed from the start. Under dry-lot conditions, ticks and foot rot are also reduced.

Even pulpy kidney disease has presented no problem to Harder, although it is a disease that often causes serious loss in feedlots and among feeder lambs grazing on

RATIONS FOR THE EWES

In the first 3 months of pregnancy, feed one of the following rations daily:

- (A) **Legume/grass mixture 5 to 6 lb.**
- (B) **Legume or mixed hay 3 to 5 lb.; silage 2 to 3 lb.**
- (C) **Silage 5 to 8 lb.; legume or mixed hay 1 to 2 lb.; grain ½ lb.**
- (D) **Grass hay 4 to 6 lb.; grain ½ lb.**

To improve the ewe's general condition in the last 2 months of pregnancy, and prepare her for nursing, add ½ lb. grain per day to the above. Some extra protein must be added to the last two. The following is recommended:

- 60 lb. oats**
- 25 lb. bran**
- 15 lb. linseed or soybean oil meal**

Mix ½ lb. per day of this mixture to the ewe's roughage. Limit the amount of grain for the first 4 or 5 days after lambing, then gradually increase it to 1½ lb. per day.

CREEP FEED

A good creep feed which will result in choice market lambs at 120 days of age can be prepared of the following:

- 50 lb. rolled wheat**
- 40 lb. alfalfa meal**
- 8 lb. bonemeal**
- 1 lb. trace mineralized salt**

100 lb. ration

To this, add a vitamin premix at the following rates per ton:

- 5,000,000 units Vitamin A**
- 625,000 units Vitamin D**
- 10,000 units Vitamin E**

Add aureomycin at the rate of 75 to 100 grams per ton.

This ration, fed in a pelleted form, can offer a feed conversion factor of 2.2 lb. feed to 1 lb. live gain.



This chunky lamb raised under confinement conditions by Ed Switzer at Portage la Prairie is proof that the program results in quality lambs



The Switzer sheep are confined and fed in an outside yard. This sheepman intends to build a shelter soon based on new government plans

[Guide photos



In spite of his broken hand, Abe Harder looks pleased about the way his new sheep program is working out. He weans early, sells lambs at 120 days old and most of them grade Choice

elover. Abe's disease control program is: vaccinating when it seems necessary and supplementing the feed with aureomycin year round.

The most important advantages of confinement rearing are the economic ones. There are two of these. First, when your sheep are close at hand, you can control the feeding program and keep a record of the gains made by each lamb. In this way you can cull out ewes which do not produce good lambs. You can also feed your lambs a high energy creep ration to get them off to a good start. Abe feeds a good commercial high energy ration, often as early as 6 weeks of age. After the creep ration, he feeds unlimited amounts of good quality alfalfa.

Controlled Breeding

Another advantage is based on a relatively new idea that is being tested at the University of Alberta. It is called controlled breeding, and its object is to produce 1½ or 2 lamb crops a year for returns of \$26.76 per ewe compared with \$15.06 per ewe, according to estimates supplied by Doug Stevenson of the Manitoba Department of Agriculture. This can be done in various ways.

One way is still very much in the experimental stage and involves the use of hormones which control a ewe's breeding cycle. Through a series of injections of the hormone progesterone, it is possible to delay heat and ovulation in sheep. When the injections are discontinued, heat and ovulation should follow within a few days. Therefore, because progesterone has this effect regardless of the time in the cycle when it is injected, it can be used to synchronize heat and ovulation in several ewes. Progesterone is effective when it is used before the onset of heat, and it does not interfere with the ewe's normal breeding behavior. However, results from the tests at the U. of A. have not proven particularly successful as yet. In recent tests, 92 ewes were treated, and of these, 71 per cent were bred and only 30 per cent lambed. Forty-five of the 50 lambs survived. Abe Harder has also tried using hormones, but his results were also spotty and unreliable. This method will likely improve as more is learned about it.

Control Daylight

Another method of producing 1½ lamb crops a year is through artificial daylight control. Tests at the U. of A. have proven this method to be most successful. Ewes normally come into heat through the shortening daylight hours as fall approaches. When these hours are artificially controlled, ewes can be brought into heat and bred sooner than is normal. Tests with daylight control at the U. of A. have produced lamb crops closely approaching those of a normal fall breeding. It also helps if shearing is done to follow this artificial pattern.

There are other factors involved also. If the ewes carry some bloodlines of the Dorset breed, they will be much more prolific, tending to breed at any time during the season, and, if lambs are weaned earlier than usual, the ewes will be prepared to breed earlier.

Early weaning does not harm the lamb if a special ration is used. Dr. W. Combs of the University of Alberta's Animal Science Department has weaned lambs as early as 35 days and says they have done well on a ration of wheat and soybean meal. Other universities have had similar success using commercial creep feeds.

Abe Harder is already getting 1½ lamb crops a year by using a 3-point

program of artificial daylight control, two Dorset rams and early weaning. He hopes that someday he might be able to get two lamb crops a year.

Higher Average Prices

Harold Seotchmer of the Canada Department of Agriculture in Winnipeg would be satisfied to see sheep raisers getting 1½ lamb crops a year using artificial daylight control. Both he and Doug Stevenson, Manitoba Department of Agriculture, are enthusiastic about the program and hope to see the day when "the highs and lows are eliminated in our market price for good quality lamb and there is a higher average price overall."

Another group which has become involved in confined sheep raising is Ed Switzer and son, of Portage la Prairie. Ed lacks buildings for his sheep, but his established flock is doing well under confinement. He plans to build a barn soon using plans specifically designed for the confinement program. These are available to anyone from: Extension Service, Manitoba Department of Agriculture, Norquay Bldg., Winnipeg 1, Man.

The University of Manitoba has a few lambs under confinement and is carrying out feed trials. It is not total confinement, however, for the ewes are allowed to graze. Dr. M. Seale of the Animal Science Department raised a couple of objections to confined sheep raising. One was the possibility of a high incidence of disease among confined sheep, and he suggested that a good program of disease control should be incorporated. Another was the fact that this program changes the traditional role of sheep, which has been to make use of marginal land.

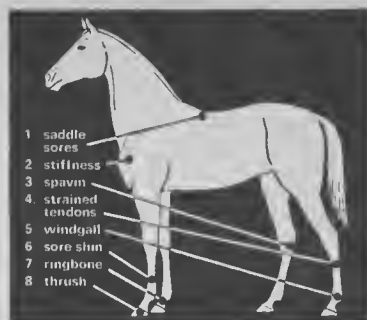
Confinement sheep raising is still in the trial stage, but it looks promising.

If Abe Harder's flock is any example of confined sheep, they seem to be rather content with their new and higher standard of living, and if Abe is any example of such a sheep raiser, he seems to be quite content with his increasing returns. Both Abe Harder and the Switzers feel certain that the sheep industry is finally due for a change. This feeling seems to prevail among all who are connected with this revolutionary idea. There seems to be good reason for their excitement. V



The University of Manitoba confines its lambs but allows the ewes to graze on pasture. These are Suffolks and Oxfords in the University flock

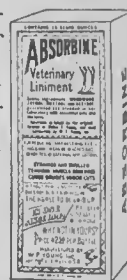
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Milk Replacers Economically Sound

USING MILK REPLACERS in feeding dairy heifers has proven to be economically sound at the University of Saskatchewan. Nearly 400 Holstein-Friesian calves have been involved in tests using milk replacers for feeding. Since 1949, the calves at the U. of S. have received only the colostrum from their dams after birth. The results have shown a substantial reduction in the cost of rearing calves without jeopardizing their growth or development in any way.

One of the objectives in this rearing method has been to produce heifers which are capable of calving at 24 months. This would enable the farmer to capitalize on winter milk prices. In aiming at a 24-month calving age rather than the more common 36-month age, it was found that after a 48-month period the 36-month calver had not defrayed her own costs of production while the 24-month calver had returned a profit of \$200. This was due to the fact that the 24-month calver had lactated twice, compared to the single lactation of the 36-month calver.

There should be no short-cuts taken when rearing calves on replacer. Recommended amounts of milk replacer, prestarter or calf meal and grower must be fed. Saving a few dollars during the first few months can result in ill-health and impaired growth. It takes considerable time and expense to overcome these serious setbacks. ✓

U. of A. Tests Feedlot Bulls

EXPERIMENTS at the University of Alberta show feedlot bulls to have a superior leanness and a lower feed cost when compared to steers. However, because of staginess, less finish and dark cutting, they receive a lower grade according to our government standards.

Bulls and steers implanted with stilbestrol yielded slightly more acceptable carcasses than those not implanted and showed a greater feed conversion efficiency. However, this was a reversal of previous experiments and therefore not conclusive. On the basis of these experiments the U. of A. feels that a bull should be finished rapidly and marketed at 12 to 14 months of age in order to show the greatest margin of profit. ✓

Floor vs. Conventional Hog Feeding

RECENT TESTS at the University of Alberta reveal little difference in the rate of gain of hogs fed either by the self-feeder or the floor feeding method.

Restricted feeding was used to avoid wastage and to improve carcass quality. The conclusions drawn from the tests show that pigs should

be allowed to eat for two 1-hour periods per day. These pigs seem to offer a greater rate of gain than those raised on any other restricted feeding schedule. The tests also show that there is no apparent advantage to the self-feeder when a restricted feeding program is used; providing there is sufficient space to allow each individual pig adequate room in which to eat. The university used a floor space of 7.4 sq. ft. per hog (not including gutter area) and the feed was simply spread in the front of the pen one or two times a day as required. ✓

Two "Practical" Herds Tested

A HEREFORD HERD and a hybrid herd of Angus, Galloway and Charolais have been tested under practical conditions at the University of Alberta. The results of these tests were:

In 1962 and 1963 the hybrid herd calved and weaned over 10 per cent more calves than Hereford cows. In 1962 the average hybrid calf was 75 lb. heavier at 5 months than the Hereford, and 56 lb. heavier in 1963. At 25¢ per lb., the hybrid calf produced \$23.75 more in 1962, and \$20.75 more than the Hereford in 1963.

The hybrids lost more weight at calving, gained more during the summer and lost less through the winter. The hybrid net weight increase in a year was 5 to 20 lb. over Hereford cows.

Incomplete rate of gain tests are showing that on the basis of weight per day of age at market, Charolais crossbreds were first, Angus X Galloway crossbreds second, Herefords third and straight Galloways fourth.

Although crossbred calves exceeded Herefords in weaning weight by 50 lb. or more, Herefords equalled or exceeded crossbreds in gain after weaning. Hereford calves also ate less per pound of gain.

Hereford and Angus X Galloway crossbreds finished faster than Galloway or Charolais crossbreds. All steers were sold after 4 or 5 months of fattening and crossbred steers had a higher dressing percentage than Hereford. ✓

Tenderized Beef in Wide Use

THE PROCESS of tenderizing beef by the addition of papain (which comes from the juice of the papaya plant) into the live animal prior to slaughter seems to be coming into widespread use. The meat packing firm which has a patent on the process reports that this beef is now being produced at 24 meat packing plants in the United States, 2 in the British Isles, 1 in Finland and 4 in Canada. The meat which is sold under the trade name ProTen is now being sold at retail in most Canadian metropolitan centers and many other cities and towns. To date, in North America, the new

tenderizing process has been used on nearly two million cattle.

The material which is injected into the animal is a vegetable protein or enzyme which supplements enzymes already present in meat to produce tenderization during cooking. ✓

Better Beef Testing

BETTER DAYS may be in store for this country's beef testing program. Agriculture Minister Hays has announced that his department is discussing with the provinces ways to establish uniform rules for beef testing stations across the country. Some agreement has been reached and there is hope that a new program will be launched by July. The new program should give beef cattle producers better evaluations of their breeding programs and will provide an important source of information for bull buyers.

Because feeding and management conditions vary between testing stations, the new program will allow only for comparison of individual bulls or sire progeny groups fed at the same station during the same period. ✓

Hog Crossbreeding Tests

HAMPSHIRE, POLAND CHINA, and Lacombe boars were crossed with Yorkshire and Yorkshire crossbred sows in trials at the University of Alberta. The results were:

Hampshire boars sired the largest litters, Lacombe the smallest. Hampshire and Poland China crossbred litters average 1.1 and .8 more pigs at weaning than those sired by Lacombe boars. Lacombe X Yorkshire dams farrowed more pigs but weaned fewer than Landrace X Yorkshire sows. Purebred Yorkshire sows weaned fewer than either crossbred group.

There was no difference between offspring of different breeds of sires in birth weight, 21-day weight, age to 200 lb., average daily gain, average feed consumption or feed per pound gained.

Lacombe crossbred carcasses were longer with less average backfat depth, graded higher and had higher ROP scores than Hampshire and Poland China crosses.

Hampshire and Poland China crossbreds had better loin eye area, yield of trimmed ham, trimmed loin and total yield of trimmed lean cuts and trimmed primal cuts than Lacombe crosses. The U.S. crossbreds had a higher value per cwt. than Lacombe. ✓

Holsteins for Beef Production

AGASSIZ EXPERIMENTAL Farm in B.C. has been running tests since 1960 to determine the meat-producing abilities of the Holstein. Results

have shown that high quality meat can be produced when the Holstein dairy steer is fed on a medium to high energy intake program.

From a total of 72 calves placed on test, one-third were slaughtered at 750 lb., one-third at 1,150 lb., and the remainder at 1,550 lb. Twelve steers in each group received a hormone implant. Carcass evaluation has now shown that the hormone-treated steers put on less fat and more lean without suffering in dressing percentage or hind-quarter proportion. The implant groups required less feed and time at all three stages, but the effect of the hormone treatment was more pronounced in the 1,150-lb. group. This group was ideal for consumer demands. Some failed to meet the present conformity standards, but then, conformity has never been scientifically correlated with meat quality or cut-out value. ✓

Tips on Culling the Cow Herd

CULLING the beef cow herd by removing the faulty and least productive animals is rated by Raymond J. Douglas, superintendent of the North Dakota State University branch experiment station at Dickinson, as "possibly the most important factor in building a good herd."

Douglas outlined his cow culling recommendations at a recent stockmen's meeting in McHenry County:

1. Cull cows with defects first, such as lump jaw, cancer eye, bad feet, and similar faults.

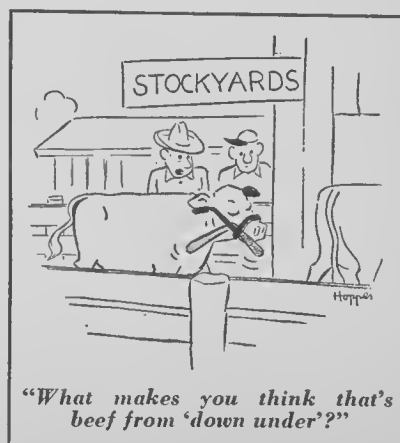
2. Unless a cow is exceptionally good, 10 years is probably as long as she should be kept in the herd.

3. If under normal conditions a cow weans a light calf, she is likely to continue to produce light calves. It may pay to remove her from the herd.

4. A nervous cow, a fence crawler or a mean cow will never change. If you don't like her, get rid of her.

5. Dry cows may not breed every year. If such cows are in good condition in the spring, sell them. They are not likely to be regular breeders.

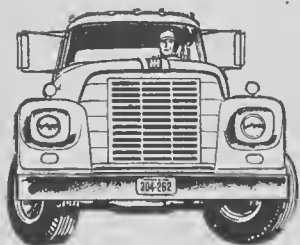
6. Remove the cows with color markings and general appearance that you do not like. ✓





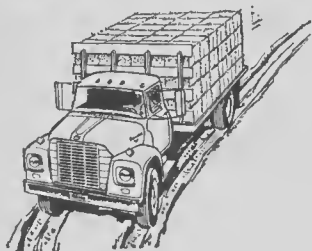
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Are We Washing Away Quality?

PER CAPITA EGG consumption has slipped; has the quality of eggs also declined and is there a direct connection between the two? "Egg Quality in This Mass Production Age," was the theme for a first class panel discussion at the recent Poultry Industry Conference and Exhibition at London, Ont.

The panel was chaired by Drew Davey of Canada Department of Agriculture, and he had a good team to field the hot questions: Joe Hudson, a volume egg producer in eastern Ontario; and Prof. H. L. Orr, poultry scientist, Dr. J. D. Summers, nutritionist, and Dr. G. W. Anderson, microbiologist, all of OAC.

Prof. Orr noted that despite the great progress made by the poultry industry, we still have to learn how to conserve quality throughout the productive life of the hen. He said that present methods of handling eggs are bound to reduce quality.

The Haugh system of rating eggs ascribes numerical values for quality: a low, flat, poor quality egg will get a low Haugh reading. Orr has found variations at grading stations all the way from 84-58. These were eggs from 10 flocks and they were all

destined for the same pack. The differences between flocks was large.

Shell quality is of particular importance these days, now that mechanical gathering, suction cup lifters and mechanical grading are adding to the stress on shells. "The high producing hen," said Summers, "just can't get enough calcium, even when drawing on the reserves stored in her bones. Too high a level of calcium in the feed will upset the nutritional balance and may cause calcium deposits in the egg. In general, calcium supplies should be increased in hot weather when feed intake drops and it should also be increased with the age of the birds."

The health status of the birds is also a factor in egg quality. Respiratory diseases can cause thin, watery eggs and the troubles may begin with the growing of the pullets.

The health of birds can affect quality in other ways; unhealthy birds kept in a poor environment give rise to the growth of micro-organisms. "A good job of washing," said Anderson, "is a good thing. But damp, warm eggs act just like an incubator. Micro-organisms can multiply from one up to millions within



Once eggs are laid, quality can deteriorate, but it cannot be improved

24 hours. Designers of egg washers have ignored sanitation and egg quality. Washing destroys the membranes which protect the pores. Entry of micro-organisms spoils quality and flavor. It would be better to only clean those eggs which require it, rather than clean every egg. The egg with the lowest bacteria on the egg surface is still the one which is dry cleaned."

Central washing and packing of eggs is becoming commonplace. Better operation of the machines and vastly better post-washing cooling are required if egg quality is not to slip further. According to Anderson, eggs washed in treated re-circulated water should not be rinsed.

Joe Hudson summed up for the producer. "When production exceeds what the individual producer can retail, he has to become tied to a quality packing station. The time is coming when flocks which supply the station have to be kept to rigid standards. It has happened with the dairy cow and it's coming for the hen."

One fact remains inescapable; no matter how an egg is handled, its quality cannot be improved. Proper handling reduces deterioration.—P.L.

Increased Lighting Safe

A BRITISH SCIENTIST reports that rapid increase in light given to pullets coming into lay was quite safe and fears of egg producers that this would result in prolapse were exaggerated. Dr. W. P. Blount, chief poultry adviser for British Oil and Cake Mills said birds had been jumped experimentally from 7 hours to 16 hours a day at one change and there had been no cases of prolapse.

He said that most strains of birds should come into lay at about 20 weeks and should then be receiving 9½ to 10 hours of light, reaching 13½ to 14 hours by 26 weeks if peak production was not deliberately delayed. This meant about 45 minutes light increase weekly.

Reports from Canadian poultrymen prove value

Winkler, Man.

Eugene Giesbrecht



Type of housing—cages
Number of birds—2,200
Average production—78.8%
(100 days)
Feed conversion—3.9
Livability—98.5%

SHUR-GAIN Research provides the formulae for outstanding livability, all-round profitable performance.

Dartmouth, N.S.

Robert Davies



Type of housing—
slats/litter
Number of birds—2,013
Average production—80%
(240 days)
Feed conversion—3.9
Livability—95%

On slats and litter, too, the All-Mash SHUR-GAIN Egg Production Program does a great job!

Mitchell, Ont.

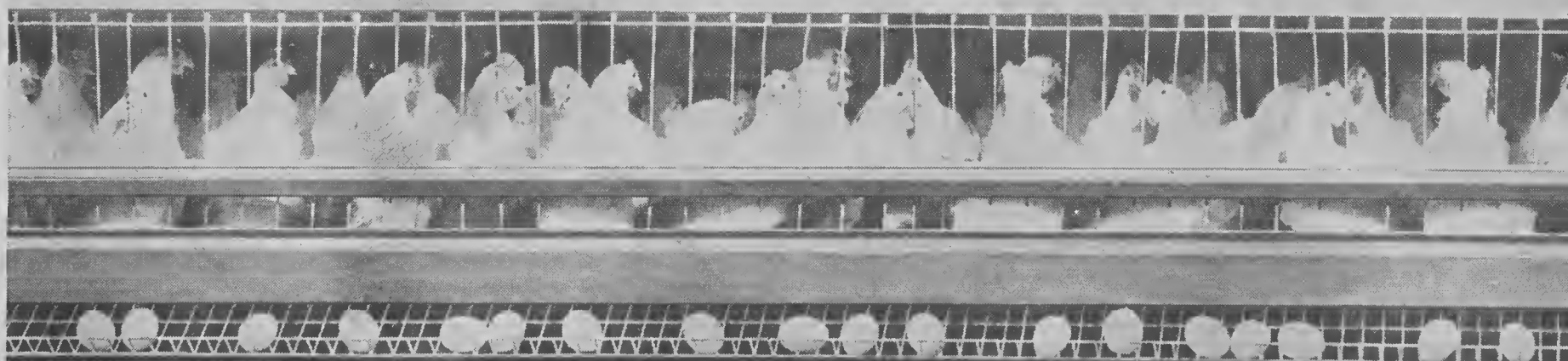
Howard Pinder



Type of housing—cages
Number of birds—10,560
Average production—77.3%
(180 days)
Feed conversion—3.61
Livability—95.4%

The low feed conversions obtained on a SHUR-GAIN program are vital to success.

SHUR-GAIN puts the *GAIN* in EGG PRODUCTION



New Pasture Timothy Coming



Dr. Childers examines one of the best selections of his new pasture timothy. It was clipped a week before the picture was taken and already a vigorous regrowth has occurred on it

THE MOST SERIOUS shortcoming of present timothy varieties is that they produce very little aftermath for late summer grazing. Once they have been cut for hay, growth virtually comes to a halt.

However, Dr. Walt Childers of the Research Branch, Canada Department of Agriculture, is developing an entirely new kind of timothy plant. It could well be called a true pasture type. Unlike other timothies, it keeps sending up new shoots during the summer. When clipped off, it rebounds back with further lush growth. If the stand is left unclipped, the seed heads will form in layers. There will be a high group of early heads but then heads will form at lower levels on younger shoots that come along.

Some seed of this timothy has been produced, but it must be tested throughout the country. If the plant does well in these tests, it could be made available to farmers within a few years.

This new timothy was originated in a rather novel way. Instead of searching on the other side of the

This picture reveals the difference between Climax-type timothy (11C) and Dr. Childers' new pasture-type timothy (on the right). Taken in early August, the picture shows how the pasture type recovered rapidly in 15 days from the time of cutting while Climax shows little or no recovery

[Gulde photos]



world for more suitable varieties, Dr. Childers drove out of Ottawa about 10 miles to an old field of permanent pasture during a late season hot, dry spell and selected 56 plants that seemed to be green and vigorous. He took them back to the Central Experimental Farm in Ottawa, planted them, and began to compare them with other timothy as to number of shoots, and regrowth vigor. He tested them and selected out the four best from which to synthesize a pasture-type strain.

Dr. Childers is also developing a new, wide-leaved timothy. This is a

hay-type plant much like Climax timothy but it has been selected for the past 10 years for wider leaves and it is now outyielding Climax in some preliminary tests. V

Now it's "explosion puffing" for fruits and vegetables. To get dried fruits and vegetables that cook fast and taste really fresh, USDA scientists tried shooting them in cereal guns. It's successful with apple slices, blueberries, and pieces of potatoes, carrots, beets, turnips and sweet potatoes so far. V

of SHUR-GAIN egg production program

St. Pie, Que.

Nick Moustakist

Type of housing—cages
Number of birds—15,000
Average production—85%
(120 days)
Feed conversion—3.25

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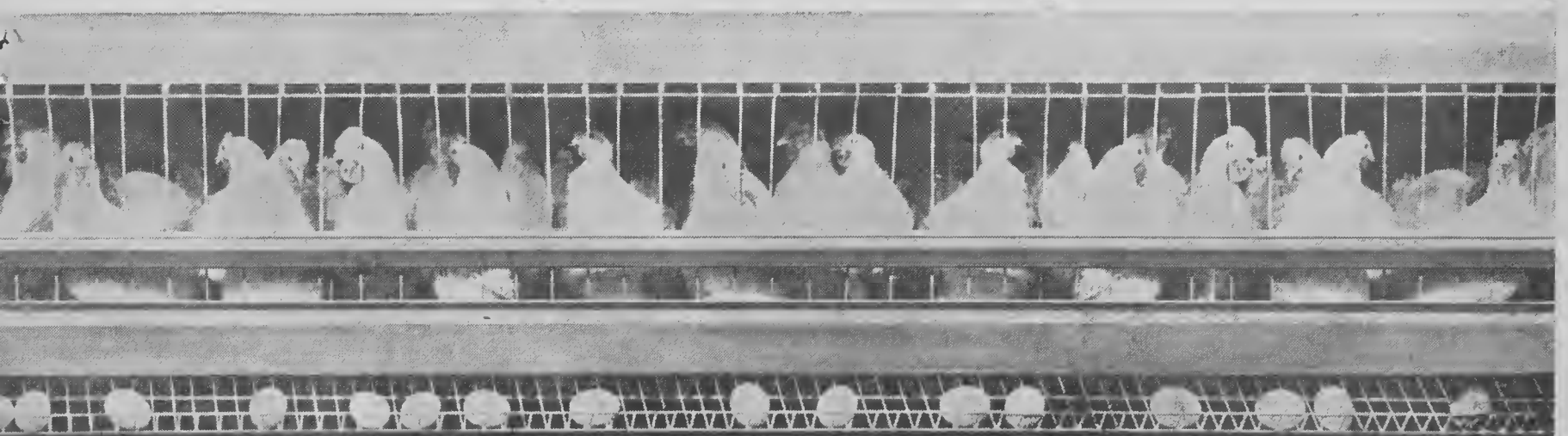
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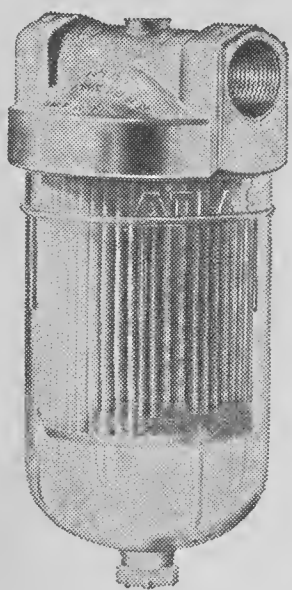
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Cliff Brierley on a piece of cleared land that was never seeded. It was cleared with a bulldozer in 1961, then burned, and the cattle turned in

Cattle Help Break Land

IF YOU HAVE SOME land to clear and do not want to spend \$30 to \$40 an acre in the process, you can do the job with a combination of horsepower and cow power, according to Gordon Ross, district agriculturist at Rocky Mountain House, Alta. The idea is to knock down and pile the growth with a bulldozer, then turn cattle in to graze the undergrowth. It is easier and cheaper to break land after cattle have worked it over than to break it green. Cattle firm the soil around stumps and roots so that the latter pull easily.

A good example of how this "Cat-Cow" combination works is seen on the farm of Cliff Brierley, a few miles south of Rocky on the Strachan road. Out of a total of 1,580 acres, Cliff is clearing about 640 acres this way. Sometimes he seeds tame grasses right after clearing, but where the native grass cover is fairly heavy he puts the cattle on the land as soon as he is able.

"It's not all done according to plan," he admitted. "Sometimes you find yourself short of pasture so you turn your stock in as soon as the bulldozer is through. But we generally seed a newly cleared piece if we can. This spring, we broadcast seed in the mud and snow right behind the working Cats. We cleaned up all the odds and ends of grass seed we had."

Asked why he did not use chemi-

cals to control new brush growth, Brierley had this to say, "Chemicals work fine on willows, but don't seem to have much effect on poplars. We have a lot of poplars in this area so spraying isn't much help to us. Anyhow, why pay \$3 to \$4 an acre to keep brush down when you can get the same results using cattle? By grazing cattle on it, you also get some return from the land right away."

How much can cattle reduce your per-acre land clearing costs? A lot will depend on the type of cover you have to remove. In Cliff Brierley's case, he found his root picking costs reduced from \$7 an acre to about \$2.25 an acre. Then he was able to finish the job with an ordinary rubber-tired farm tractor pulling a 5-bottom, 24-inch breaking plow.

The Brierley farm is strictly a cow-calf operation. Cliff is running 190 cows now, but plans to increase his breeding herd to about 400. To accommodate this growing herd and give them shelter during calving, he has constructed a 28 ft. by 280 ft. pole frame barn, fenced spring pastures and a 28 ft. by 160 ft. hay storage unit. Well protected by a belt of trees on the north and east, the barn is open to the south. This way, Cliff hopes to be able to get his animals to calve at an earlier date so they will have a bit of extra weight at weaning time.—C.V.F. V

Cliff Brierley's cows are sheltered for early calving. Pole shelter, hay storage and fenced early spring pastures are provided



Left to right: Gordon Ross, Cliff Brierley and Ron Anderson looking at seed catch on land cleared and sown this spring

Buildings with a Flexible Future

Buildings are now being designed for "component construction" so they may be used for poultry, swine or cattle as changing needs require

COMPONENT construction is yet another new term to add to your glossary. Its meaning is simple, and its implication is very topical. In recent years there has been an obvious and steady trend toward new, specialized farm buildings. Component construction implies basic uniformity in building plans.

"This is the only way," says extension engineer John Turnbull of the Western Ontario Experimental Farm, Ridgetown, "we can satisfy the tremendous demands for building plans — the shell of each building is similar, but we can vary the floor plans to suit individual needs and preferences."



John Turnbull, agricultural extension engineer at Ridgetown, Ont., displays a model of component construction

[Gulde photo]

An equally important point in standardizing the building plans is that buildings can have a far more flexible future. The one exterior design can have a wide variety of interior uses. A component construction barn might be used for any of these very different livestock operations:

- A loose housing beef barn with an overhang on the south side.
- A dairy barn designed to handle two rows of cows.
- A poultry house for cage layers.
- A semi-slatted or completely-slatted floor building.
- A hog finishing barn.

This versatile building would normally be windowless, although it might have emergency ventilation flaps for use in the event of power failure. In the case of the slatted floor barn or the hog finishing barn, a concrete wall is essential. In other respects, the construction requirements are simple and uniform. Poles should be 8 feet apart so that doors can be cut at any desired position. The gable W-trusses for roof supports should be 4 feet apart. This combination of pole construction and roof trusses gives a clear span interior.

For certain uses, such as machinery storage or as a shelter for beef cattle, insulation may not be desired. However, if the 3" x 2" girts are placed 16" or 24" apart, insulation can be added later. The most common wall construction incorporates steel sheeting, insulation bats, a vapor barrier and a plywood interior surface.—P.L. V

New Beams

A NEW KIND of beam construction could be of great use for farm buildings. The beams are strong, light in weight, and relatively inexpensive.

According to Prof. F. H. Theakston of the Engineering Science Department, O.A.C., these plywood beams can be constructed to suit a variety of needs. Basically they consist of a top and bottom flange separated by several stiffeners or ribs covered with webs or sheets of plywood. The beam is similar to a ladder covered with plywood. The flanges absorb compressive and tensile forces while the plywood webs transfer the shear forces created by the load. Shallow webs can bridge widths up to 50 feet while the deeper beams can cover up to a 100-foot span. V

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World's Finest Tractors

How to Allocate Capital

WITH FARM OPERATING costs rising year after year the job facing farmers is to spend their available capital where it will give the best returns.

J. Wallace of the Western Ontario Agricultural School at Ridgeway reports a study made in Kent

County, Ont., which sheds light on how to do this.

Wallace reports that the study which dealt with corn production showed that higher corn yields in that county didn't compensate for the higher land costs. "If the matter were dropped right there, one would

have to conclude that farming is more profitable outside Kent County," Wallace said.

But the study also showed that the costs of growing and marketing corn could reach \$2.20 per bushel in a poor year like 1960 or be as low as \$1.15 in a better year such as 1961.

Wallace concludes that the lesson of the study is this: it's no

longer safe to operate at average levels of success! You must operate at a highly efficient level. Some managers keep their costs per bushel at 40 to 50 per cent below average. This can mean the difference between profit and loss.

What are the production costs? The major ones are usually fertilizer, machinery, land costs and labor. Land, labor and machinery costs are largely fixed. The fertilizer cost is the only major expense item which is truly variable. It is here that mistakes are made. Some farmers vary their fertilizer purchases according to the money they have available. However, if they are aiming for high profits, they must find the capital to provide the required fertility level.

Although total machinery costs are fixed on most farms for the year ahead, it is possible to grow more acres of a crop and therefore reduce the machinery costs per bushel of production. Higher yields help to reduce the cost per bushel for machinery, too.

Capital is the other major cost of doing business. It may be in short supply because borrowing is done at interest rates of 10 to 14 per cent rather than about 6 per cent. Sometimes the operator has not given the lender enough information and a strong enough argument in favor of a loan equal to his needs and ability to repay.

Wallace says that it has always taken money to make money and asks why not use someone else's along with your own and make a little on his, too? Lending institutions are in the business of lending money. They do not wish to farm. All they want is to place the funds of their depositors in the hands of people who can make good use of it and pay it back with interest.

Wallace concludes that if you can afford to farm you can't afford to operate without sufficient capital. If you try to go it alone you will be fighting an uphill battle to become an average operator rather than aiming at well above average and guaranteeing yourself a place in the future as a farm business operator. Your future will depend to a large extent on the amount of outside capital you can get and use to good advantage.



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IN HARVESTING tests at Cornell University, apples are picked directly into consumer cartons. The cartons are placed on pallets or platforms in the orchard and handled by fork-lift trucks right through to supermarket floors. In the market, pallets serve as display racks. Pickers are trained in "sport-picking" of fruit; leaving undersized, misshapen, or damaged apples on the tree. Two years of testing indicates the method offers lower marketing costs, faster distribution, larger store volume and better satisfied customers.

Horticulture

Couch Grass Control in Sight

ENCOURAGING RESULTS in the control of couch grass in lawns is reported by Dr. W. H. Vanden Born, assistant professor of plant science at the University of Alberta. Dr. Vanden Born has been experimenting with Dicamba and Tordon, two comparatively new herbicides. Tordon is not as yet licensed. There is one catch: lawns must consist solely of Kentucky bluegrass. Both herbicides are harmful to creeping red fescue.

Dicamba, at 20 lb. per acre, reduced the number of couch grass shoots to 4 per 100 sq. ft. and reduced the ground cover to 72 per cent. At 40 lb. per acre, all couch grass was removed and ground cover reduced to 58 per cent. However, even some of the Kentucky bluegrass was killed at the heavier rate.

Dr. Vanden Born's greenhouse experiments show that couch grass rhizomes are most affected when they are just beginning to grow and that the chemical must get to the roots quickly. For this reason the lawn must be watered heavily after applying the chemical to wash it down to the root zone. Fall is a good time to apply it, says Dr. Vanden Born, because the chemical persists in the soil over winter and affects the roots when they start growing in the spring. Now he is experimenting with the injection of the chemical into the root zone to reduce damage to foliage.

There are disadvantages to these chemicals, Dr. Vanden Born points out. Both are injurious to young Kentucky bluegrass. Both harm trees and shrubs if not used carefully. They should not be used to kill couch grass before the lawn is planted because at required rates the chemical persists and seedlings won't survive. While these chemicals are not generally recommended for couch grass control in lawns, Dr. Vanden Born believes that results are good enough to warrant further trials. ✓

Help Your Lawn to Winter Well

LAWNS NEED SPECIAL care in the fall, says P. D. McCalla, horticultural supervisor of the Alberta Department of Agriculture. For example, dead leaves and branches should be removed because, contrary to popular belief, they do not provide winter protection and they can smother the grass.

Cut the lawn when it needs it. Similarly, water when necessary. However, as the season progresses, it won't need as much water as it does during the summer because nights are longer and days cooler. Mr. McCalla warns that whatever the season, a light sprinkling is worse than no water at all. Light sprinkling

tends to bring the roots of the grass to the surface and they are then much more susceptible to both drought and frost damage. He strongly recommends a thorough watering toward the end of October to reduce the danger of winterkill.

It's advisable, he says, to hold back the use of fertilizer after mid-August. Fertilizer is apt to promote new growth and leave the grass more susceptible to winterkilling. Neither does he recommend fall weed control measures. Wait until spring to spray for weeds, he suggests.

To control snow mold on golf courses, bowling greens and in parks, treat grass with a mercury preparation. Mr. McCalla recommends a 2:1 mixture of Calomel and corrosive sublimate applied at the rate of 3 to 4 oz. per 1,000 sq. ft. Mix it with dry sand for easier spreading and apply it the last 2 weeks in October. Finally, if you want a good lawn next summer, discourage walking paths, ski trails and skating rinks on the lawn area. Ice and packed snow cause the grass to winterkill from lack of air. ✓

Tips on Repotting

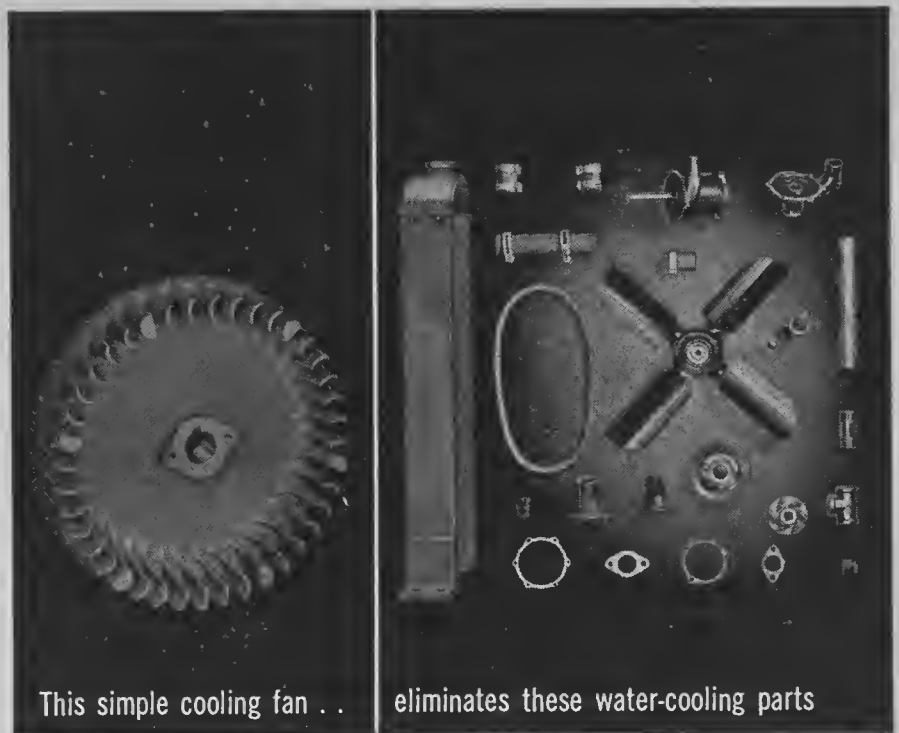
REPOTTING should be done whenever necessary, but the best time is in the spring say horticulturists with the Ontario Department of Agriculture. House plants need repotting when the plant is too large for its present container and the pot has become full of roots; or when the soil has become exhausted and the plant is unthrifty.

A good mixture for repotting old plants consists of 7 parts loam, 2 parts peat, 1 part rotted manure, and 2 parts sand. It is often more convenient to buy a pre-mixed potting soil from garden centers or stores selling horticultural supplies.

Take the plant out of its old pot by turning the pot upside down and tapping the rim of the pot on the edge of the bench, keeping the fingers over the soil to prevent the plant from falling. To provide good drainage, place pieces of broken flower pots, concave side down, as well as some roughage, over the drainage opening. Add a little soil and then put in the plant adding more soil on all sides, firming the soil with the fingers or a narrow slat of wood. At the same time tap the pot on the bench to help settle the soil. Do not fill the pot completely, but leave one-half inch at the top for watering. ✓

Fall Care for Iris

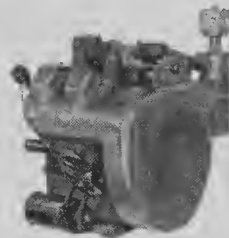
SOON IT WILL BE time to remove the foliage of iris plants. Horticulturists with the Ontario Department of Agriculture suggest that leaves be cut back to within a few inches of the ground in late fall. All dead leaves should be removed and the beds or borders thoroughly cleaned of weeds, leaves and other debris. ✓



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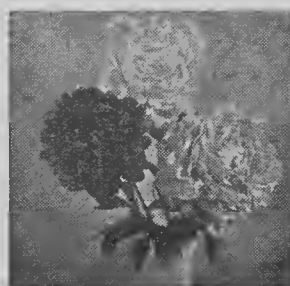
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This dividend will be paid on or about September 1st, 1964, to holders of such shares of record at the close of business on Friday, July 31st, 1964. By order of the Board.



D. G. Miller,
Secretary

July 14, 1964
Winnipeg, Manitoba

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What's New

Grain and Forage Blower



This PTO-driven grain and forage blower is close coupled and easily positioned for fast unloading. The unit can be equipped with a hopper or feed table. (Ford Tractor and Sales Equipment Co.) (473) ✓

Water Bowl



The Nelson "Flip-Top" Automatic Water Bowl provides livestock with temperature-controlled, clean water the year around. This bowl is capable of watering 40 head of cattle in a feedlot or 25 in pasture. The bowl is of stainless steel and aluminum construction. (Nelson Manufacturing Co.) (474) ✓

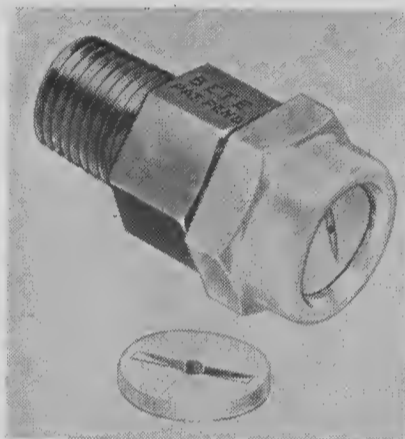
The BMA Constant Environment System of hog barn ventilation controls one of the most vital elements that effect your hog's rate-of-gain.

The system maintains temperatures in the optimum zone for weight gain, regardless of how low the outside temperature drops. A continuous volume of clean, odorless air is supplied year around. The unit uses either natural or propane gas. (Bullock's Ltd.) (475) ✓

Barn Ventilator



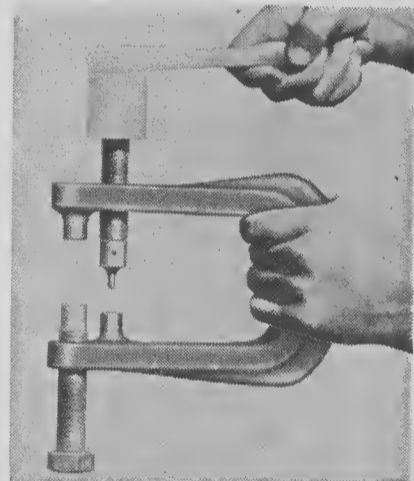
Ceramic Disc



These new spray nozzles with ceramic spray elements outwear metal nozzles many times. They provide a capacity range of .05 to 5 g.p.m. with spray angles of 60 to 80 degrees. Base material is brass, stainless steel or plastic. (Bete Fog Nozzle, Inc.) (476) ✓

Rivet-Eze

Rivet-Eze is designed to replace damaged knife sections in the field. This tool removes the old rivet and installs a new one in a matter of minutes, without having to disassemble the sickle bar. (Erle Savage Co.) (477) ✓

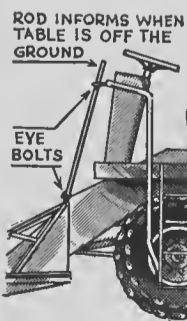


For further information about any item mentioned in "What's New," write to WHAT'S NEW, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

Workshop

Table Gauge

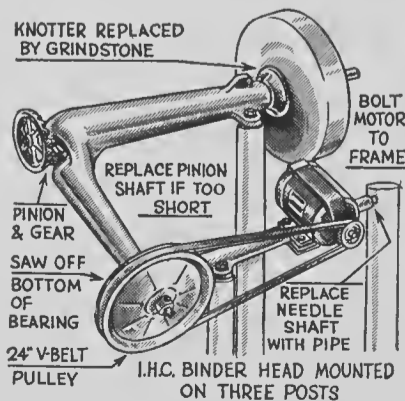
I have found that an easily made table gauge comes in handy when you're combining in the dark. Attach a 1/4" rod to an eyebolt which is bolted to the table. Pass the rod through another eyebolt in front of the steering wheel. As the table is raised or lowered the distance from the ground can be gauged by the amount of rod which is visible.—H.W., Sask. ✓



Grindstone

That old farm grindstone can be mechanized and come back into its

own again if you use an IHC binder head to reduce the RPM of a 1/4 h.p. motor. I mounted the binder

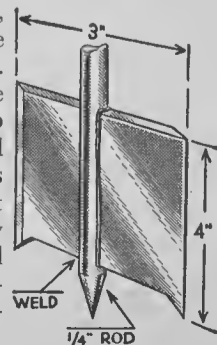


head on three posts as shown and replaced the knotter with the grindstone. The needle shaft should be

replaced with a length of pipe which will hold the machine at the right height. I find this unit is very useful in sharpening tools of all kinds — especially mower blades. — C.G.W., Man. ✓

Homemade Bit

When you're in need of a 3" bit in a hurry, you can make one quite simply. Weld a suitable length of rod to a 1/4" plate and sharpen the edges at 45°. It is best to use a fairly powerful drill when you're using this bit. — R.C., Sask. ✓



WHEN Derek Morley looked at the tigress he had shot, he saw that she was a mother feeding a young family. She lay at his feet, still warm and soft, and four men were needed to lift her, and there were no thoughts any more behind the yellow sunlit eyeballs, but flies in front of them instead; and Derek was most bitterly sorry.

The cubs? Where were they? Now that their mother was dead, they would die of starvation.

Lifting his eyes from the striped, slopped body at his feet, Derek gazed across the area where they were likely to be. It was heavy grass jungle, full of swamps and thorn-thickets covering about two square miles between the Rapta River and the Kaladhang-Sitawali Road.

He guessed that that was where they were, because the tigress had objected to people on that road, and demonstrated before the gangs of road coolies until they were obliged to go away. She had threatened Babu Kupra Singh on his pony, and sent him flapping home at full gallop. Any day there might have been an accident, so the villagers from Kaladhang and Sitawali had come to Derek in a body and implored him to shoot her.

Which he had done.

Derek was country-born, and his father before him. He could not imagine living outside India—or outside the jungle, for the matter of that. His life was tents and field glasses and faded khaki, and water bottles with the felt wearing off and the aluminum showing through. So he stayed on where he was in his government biology department, doing things about malaria and so on, and political changes meant little to him.

He was a tall, spare man, sandy, with greenish eyes. He was shy, not expecting women to like him, and he had never married, the girl he wanted having married someone else. People considered him an unsociable hermit, rude and bad-tempered.



GINGER

by NORAH BURKE

Instinct was driving Derek down a desperate road. He knew he had to save this life—the life of a tiger

He read with his meals because eating alone one eats too fast and too little and it doesn't much matter anyway. He read a lot, largely natural history books, but most of his knowledge had been gathered in the forest on foot, direct from the trees and animals themselves.

When they got the tigress home, there was a pack of people crowding around the stiffening carcass, to marvel and exclaim and bend and lift the black lip to see the teeth, and perhaps steal a wiry white whisker or two for charms.

Babu Kupra Singh turned to Derek with a broad smile.

"Now you can go fishing," he said. Fishing was Derek Morley's passion. He had three days' leave due to him, this job was done, and you could hear the great Rapta River even from here, rushing along to join the Ganges and full of mighty fighting fish.

"I'm not going fishing after all," replied Derek. "I have something else to do."

He decided against using an elephant, though perhaps he might have to in the end, if he failed to push through the grass on foot. But elephants could bulldoze an area flat and you still would not know if the cubs were in it or not.

No, what was wanted was a good dog.

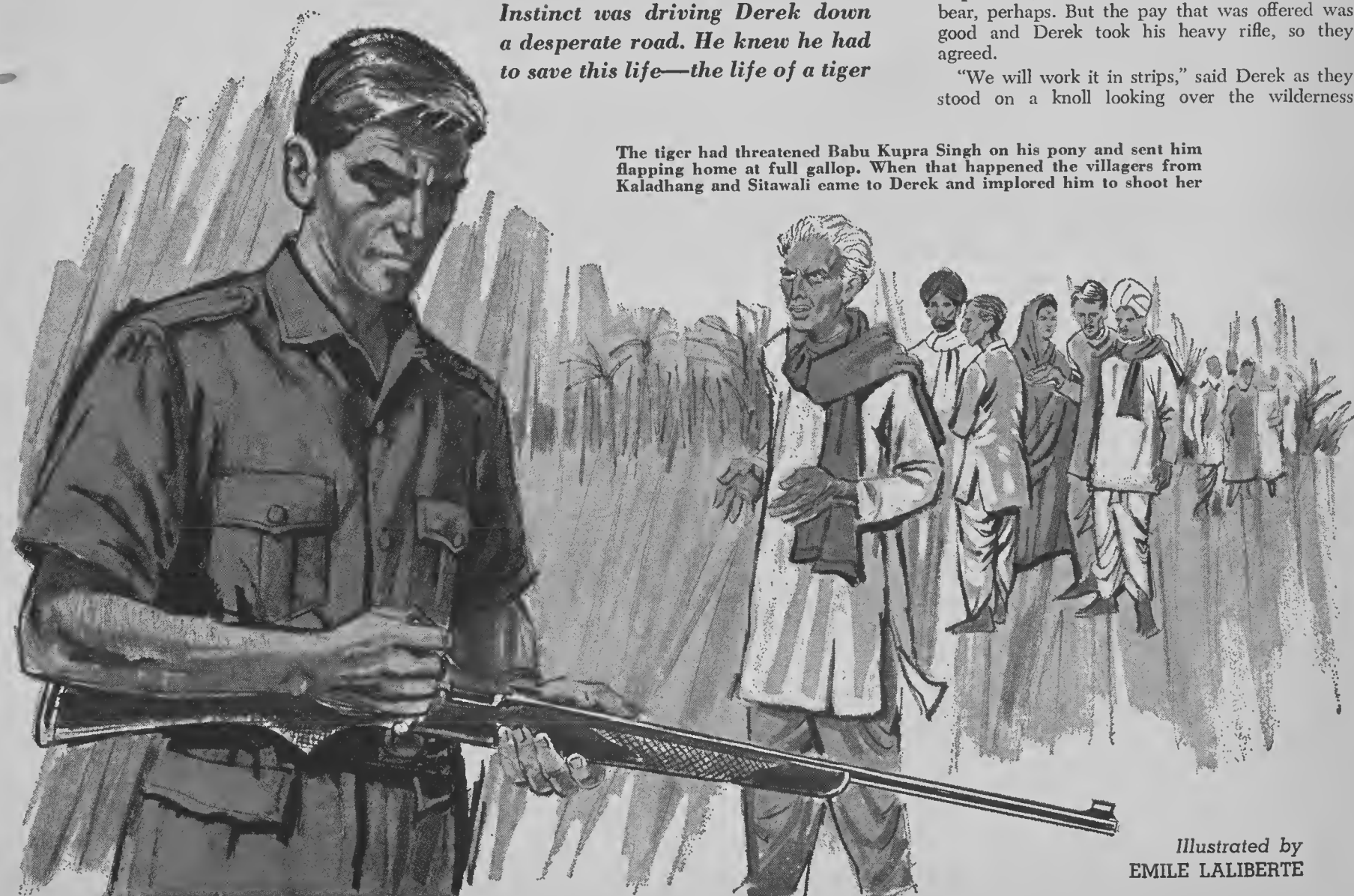
Up till recently, Derek had owned a leggy spaniel called Touch, who had been with him night and day in the jungle for thirteen years. They hunted together, these two, silently, because they could speak to each other by thought. Touch was needed now.

But he was gone. The inevitable moment had come, the illness of age, the incurable pain, and Derek had not shrunk from that last terrible duty of master to dog. When Touch was not looking, he shot him. So he had no dog, and never would have again.

HE got two men from Sitawali with their curs to come and help him, and they set to work to quarter the bit of jungle on foot. The men were none too keen, thinking of the tigress's mate, or panthers, too, of which there were plenty, or a bear, perhaps. But the pay that was offered was good and Derek took his heavy rifle, so they agreed.

"We will work it in strips," said Derek as they stood on a knoll looking over the wilderness

The tiger had threatened Babu Kupra Singh on his pony and sent him flapping home at full gallop. When that happened the villagers from Kaladhang and Sitawali came to Derek and implored him to shoot her



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toward the river. "Up to those sal trees first, then the next piece as far as the bamboo."

From miles away wind could be heard shuffling the grass as it swept across the hot swamps. It cooled and dried his wet skin; but uselessly, because more sweat came pricking out all the time.

Grass tall enough to hide an elephant flowed before them, thick as matting, and topped with the cream floss of seed heads. And in and out of this thatch there stuck up the tangle of wait-a-bit thorns, the slender silver-green jostle of bamboo. Derek thought: You could spent a month and never find anything.

Nevertheless he began to look.

They searched for three days, pressing through grass which would neither break nor separate, but which cut like knives. They studied old pug-marks, dried along the wheels from which rose duck and sarus cranes with their crimson heads and sleek pearl-gray plumage. They broke the dried crust of the mud and sank in sometimes, releasing old and evil smells. At night, when Derek closed his eyes, he saw nothing but grass. And still the cubs were there somewhere, dying.

The dogs went in front, nostrils working, not sure what they were supposed to turn out. They flushed chukor partridges, and an old pig who stood rooting and snorting, but finally galloped away down one of his tunnels, through the grass. They put up peafowl, hog-deer and kallege pheasants. But there was less game now than there had been even in Derek's boyhood, and no opportunity for the big trophies of the last century to develop.

It was during the evening of the third day that Derek saw something glint in the grass. It was like the glass eye of a mounted tiger head. It was . . .

He plunged at it, and there at last were the cubs, two of them, weak and ravenous. They were silent, even in suffering. They lay curled together in the soiled nest with no mother to clean them, and stared up at him with frozen yellow eyes.

Derek unloaded his rifle, put it down and picked them up, one in each arm, plunging his fingers deep into their fur till he reached warmth; for they were still woolly babies with big ears—nestlings clothed in fur, not hair, recording some unknown bleak northern origin of the tiger.

Now they wriggled and fought, squealing for their mother, savaging his fingers with harmless gums. Derek held them close, delighted that he had found them.

Back at the bungalow, he took the basket in which his chickens traveled from camp to camp. He tipped it out and lined it with fresh hay, sweet-scented and dry, and put the struggling cubs into it while he prepared their food. He closed the lid and stuck the stick through it. The basket creaked and rocked.

LEAVING them in the shade, because tigers don't like direct sunlight, Derek took buffalo milk, and brandy, and the eye-dropper out of his medicine chest.

He tasted the mixture he made. It was weak, not enough brandy to

take off the flavor of the buffalo milk. Just right. He fished the cubs out one at a time and dripped the stuff into them.

They were a tiger and a tigress, the female smaller and poorer than the male. She was too weak almost to swallow, and sneezed the milk back out of her nose, choking over it. He got a little into her, then blotted her with his bath towel and put her back in the basket.

"I don't think I shall save them," he said out loud, talking to himself. He could feel something in him going out; a force, the lion-tamer in him, the creator, nurse and surgeon, strained for victory.

The tiger was easier. He sneezed, too, at first, but next moment he got the way of it and gulped food in and tried to get hold of the dropper.

Derek tried a finger instead, dipping it in the milk and offering it, but the cub dodged his head away, first one side then the other, refusing to be helped.

Derek dabbled a little on the baby's lips. A sand-paper tongue, small as a fuchsia petal, came out to dry the lips, to lick the finger, to grab and suck.

Derek laughed out loud. The sound startled him. He realized suddenly that he had not laughed since Touch went. And suddenly, too, something was released inside him with the laughter. Something broke like a poison-gathering and began to drain and heal.

"I believe I shall save them, after all," he told himself.

When the baby was fed, he picked him up under the arms like an infant, and looked into the tiny, downy face. Milk dewed the whiskers, opaque golden eyes returned his stare. They were as blank of communication as the dead eyes of the mother-tigress had been. Between him and the cub there was something that divides man and beast, a barrier which can almost never be crossed.

He brought the baby up close to his own face, till the breath blew on his lips. He tried to look into the brain, the heart, the spirit. There was nothing. Here in his hands was the very soul of the Indian jungle, fresh and wild. He could feel the warmth, the thump of the little heart. All the passion of created life could move in this blood and these nerves, and yet he could no more touch this entity than the snows of Everest.

The cub turned his head away, uncomfortable under human gaze. The little lips were stitched back in the ghost of a snarl.

Derek laughed again. "Hi, Ginger!" he whispered.

The baby wriggled to get away, and his hind legs slashed at Derek's bare arms, leaving white marks on the tan.

Derek got him back into the basket, the claws catching like thorns on everything to resist as he was stuffed in.

Now try again with the tigress. He managed to get a few drops down her throat; but his susceptible magic hands that could save sick animals felt that she was slipping out of their reach.

He was up all night with the

cubs, dozing only at dawn, but while he was not looking the female died. There she lay in the hay, flattened and cold.

He was sorry. Life was pitiless. But he was determined to save the other.

At this point, if Derek Morley had stopped to think, he might have acted differently. But he did not. He obeyed instead the strong human instinct to preserve life, and so set his steps upon a desperate road.

KNOWING that only special understanding could save the cub, he kept Ginger with him instead of presenting him forthwith to a zoo. There was a zoo in the nearest large town, about two hundred miles away. Originally a rajah's collection, it had come into public ownership in recent years.

At first Ginger lived in the chicken basket, and the chickens in a new one. But he had to have air and exercise, so Derek bought a collar and chain and attached him either to a tree or, when he was camping where there was a forest rest-house, to one of the veranda pillars. The time he tied him to a tent pole, Ginger brought the tent down about him and fought it till he was rescued.

Derek took his tiger for walks. After a while, the cub learned to scramble along without fighting. He learned to lie at his master's feet. He ate well, and was partial to bedroom slippers.

His menu included crow and jungle fowl, and hunks of anything that Derek shot for the camp, all of which was savaged and swallowed almost whole. But under his master's patience and understanding and indifference to pain and damage, the cub was slowly tamed.

"It's time you learned your name, Ginger," said Derek one day.

He was sitting in a cane easy chair on the veranda. Beside him lay the tiger cub. His ears did not look so big now that his body was growing. They turned sensitively and independently forward and back to collect intelligence. He was listening to forest talk, the chatter of palm squirrels, the swearing of monkeys. Both squirrels and monkeys often called because of the cub they could see on the veranda. So did the camp chickens, straining their necks and cackling to everyone to look out. Ginger had had no mother to teach him, but it was perfectly clear that he understood all jungle talk even if human words meant nothing to him.

"Ginger," said Derek firmly. There was no answer. "Ginger!"

The broad head lifted. Eyes that had in them the peace and heat of sunset looked into his.

"There!" He stroked the baby's head, repeating his name over and over again. From his pocket he produced crumbles of dried meat. The cub licked them up, snuffed round for some more, looked up, looked away. His eyes gazed off into the sunny compound where Derek's chickens were scratching the dust. His head sank on to his paws.

"Ginger . . .!"

The cub glanced up at once. For one moment, like the flare of a match, understanding lit his eyes. The black tip of the tail twitched.

DEREK smiled and fed him again. He bent and picked him up, grunting at the weight, and let him lie on his chest, as Touch used to do, while he stroked him from snub nose and flattened ears, all down his backbone to the barred and energetic tail.

The act of saving an animal gives birth to love, but behind this feline lay not centuries of ancestral co-operation with mankind, but war. In all the forest, the wild gold kings fear no one but man. Yet here, as these two lay eye to eye, Adam and the Jungle, and the vibration of the cub's purring drummed the man's chest, were already companionship, love and loyalty. The barrier was crossed.

But fur was coming off in Derek's fingers as he stroked. He flicked it off and he glanced down. Through the molting baby wool could be seen hair, the rich red gloss of a tiger.

When Ginger had learned the basic words of command which Derek considered that every dog should know—to follow, or stay, to sit and drop, as well as his name, and even to walk at heel—the cub was sometimes allowed loose in the compound. He was like a puppy about the house, except that he still had his meat raw and would eat nothing else. He slept on the floor by Derek's bed.

It was his growl that roused his master one night and Derek was awake instantly and on his feet. He sprang to the door. Outside in clear moonlight he saw a man's shadow vanish round the corner of the house.

A thief? Derek was after him, barefoot in his pyjamas, but to no avail. He roused the camp and they made an armed search at once without result.

Derek came back to his room. Ginger was sitting up, chained, waiting for his return, his eyes glowing white-red in the moonlight.

"Thank you, Ginger," Derek said.

His hand traveled over the ears, black and round, each with its large white spot. In his palm he could feel the movement of head muscles. Even the little secondary muscles of Ginger's face were powerful now.

Derek frowned. He got into bed. The tiger, who had rolled his head against the known touch, rubbed himself along the bed, shifting it. He lay down with a sigh of contentment.

In the morning Ginger killed his first chicken. He killed it neatly, although he had never been taught, and he brought it to the veranda for him and Derek to share. Derek bent uneasily to take the dead bird. Ginger had feathers round his mouth.

Three weeks later he brought a goat from the village. Derek did not even know that the cub was gone out of the compound. He chained him. He paid for the goat.

"The tiger is not to be let loose any more," he ordered.

Something must be done, and



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soon, but what? The zoo . . . a bullet?

In the meantime he bought a heavier collar and chain. The chain disturbed his rest, rattling and dragging. Then one night it did not trouble him; and, when he woke, the first thing he saw was the chain broken and glinting in morning sunlight on the floor.

They soon learned where Ginger was gone. A party of men came from the next village.

"Your tiger has killed a calf belonging to Haram Singh."

"I will go back with you," said Derek.

He took his heavy rifle and some cartridges, in case it came to that; and before they reached the village he snapped two into the breech.

Obediently inherited instincts, Ginger had dragged his kill from the outskirts of the village, from the place where he had killed it in front of everyone, and was eating it nearby in the long grass under a runi tree.

With his rifle under his arm in the easy unnoticed carrying position of the natural shot, and watched by the entire village, Derek approached his animal.

"Hallo, Ginger," he said.

The young tiger looked up, alert and tame. He was bright orange-yellow now, and pure white and jet black, his body vivid with electrical vigor and intelligence. There was blood all over the broad handsome face.

"Ginger?"

But someone he did not know returned his look. This was Ginger's body, but it was not Ginger looking out of those eyes of burning glass.

Derek turned to his audience. "I shall wait till he has fed," he called. "Then I will take him away."

And presently the young tiger rose and stretched, looked at Derek, looked at his kill. He began to clean up his face. He decided to come home.

Derek unloaded his rifle. He borrowed a jeep, put Ginger into it, and journeyed eighty miles into the forest, away from habitation, where he could release the cub to fend for himself.

They came up timber-dragging trails and firelines, and so to a deserted glade. This was the place. He took off the collar. He let the tiger go.

Ginger shook himself, and looked round. Whiskers, ears and eyebrows reacted. He lowered his head. Raised it. Strolled across to some trees. Derek drove away. He did not look back.

FOUR nights later, a shadow shut off the moonlight in his bedroom. For a moment the window was curtained, there was a gentle thud, and an animal lay down on the floor beside him in the darkness. He could hear a tongue on paws. Ginger was back.

Derek could have taken the tiger an even greater distance away, could have found jungles farther and wilder, but the villagers objected to the cub's release anywhere, and, of course, they were right.

Derek wrote to the zoo. They had plenty of tigers, they replied, but would accept another, provided he wanted no payment for it.

So he made another journey with his tiger, and saw him into his cage. He observed that the other animals in the collection seemed well-cared for, and he went away.

"Let me know how he gets on," he said.

A week later the zoo wrote: "Your tiger will not eat."

Derek's time was limited, but he made the journey immediately.

When he arrived, he found Ginger lying patiently with his face to the bars, watching the door by which his master had gone out. Now, when he saw Derek, he got up. He was shaky, and his belly empty—Derek could see that—but he growled thunderous pleasure and lashed his tail and waited to be taken home. Derek saw that already all down his tummy was the spare fold of skin of zoo tigers, however well they may be fed and tended.

While his master was there, Ginger had a good meal. Then Derek had to leave again.

Three weeks later the zoo wrote: "Regret to inform you the tiger is ill."

And the next day: "The young male tiger presented by you to this zoo died last night. No visible cause of death."

DEREK sat that evening on the veranda of the empty white-washed bungalow where he happened to be for the night, in which his few bits of camp furniture did little to break the echoes. He'd got a pile of office work to get through, but he kept stopping and looking into space.

Never again. Nothing ever again.

Then his eyes came back to see things that were really there, and he saw a small boy from the local village standing in front of him with a chital fawn in his arms.

"What shall I do with this?" asked the boy.

"Where did you get it?"

"A panther killed the mother, and my buffaloes disturbed the panther, and we came up and found this."

"I see."

The fawn was no bigger than a rabbit. It sat folded in the boy's arms and flicked its large ears, and gazed with great dark eyes that had not yet learned to dread man. The dappled coat of golden brown was perfect and tender, vulnerable to all the things that life could do to it.

When Derek took the little creature into his hands, whose touch every animal recognized, he saw that the hooves were smaller than his thumbnail. As he looked, the fawn licked him.

A smile twisted his face. At least, it might have been a smile.

"How much do you want for it?" he asked.

"Ginger" is another story from Norah Burke's short story collection titled "Jungle Picture," published by Cassells of England in 1960.

Let's Think It Over

by THE VERY REV. M. L. GOODMAN



What's in a Name?

For almost 300 years the name "Christian" and the "Way" had been inseparable. Christians were not popular with the general public. They weren't like other people. All sorts of peculiar stories and rumors were circulated about them.

In 313 this was all changed. It became respectable to be a Christian. It happened thus. Two men were contesting the leadership of the Roman Empire. It was the custom in war for each contestant to choose one of the many Roman gods as his patron. For some reason, one of the two aspirants, Constantine, chose the God of the Christians. There is substantial doubt that Constantine was a convinced Christian at this time. Constantine was victorious and became emperor. As an act of gratitude, he made Christianity an "official" religion of the Empire.

Christianity now became fashionable. People began to take the label, not for conviction's sake, but for convention's sake. No longer were the name and the life inseparable. The army of Christ was actually weakened by this infusion of nominal members. Before this, they had all been strong soldiers of the faith. Now they became much more numerous but many of them didn't know what it was all about. Many took the name, but did not live the life.

The bad effects of this new respectability were not noticeable at first. It's only by looking back that we can recognize them. At first there was great rejoicing at the increase in numbers. But it was a flash growth. In many cases, there were no roots. Within 300 years the dark ages began to descend on Europe and the Church. The light which blazed so stubbornly and wonderfully under persecution and tribulation grew dim and feeble in the night of ignorance and carelessness, even though there were more people calling themselves Christians than ever before.

Suggested Scripture: Revelation III, verses 1-7.

Voice from Love and Glory

We were most fortunate as boys. During the summer we slept in the boathouse. Before bed you could sit on the balcony and watch the sun go down, and in the twilight listen to the bullfrogs across the lake croaking a resonant but irregular chorus. You could sit and watch the moon rise and cast its silver path. Best of all were those moments just before sleep, lulled by the gentle splash and murmur of the water and the breath of the soft summer air.

However, there were nights when sleep was disturbed and finally interrupted by the roar of the wind and the crash of mounting waves. Then we had to scramble out of bed and secure the boats in the darkness, amidst flying spray and water sluicing over the docks.

So it is that even now I will awaken if the wind rises at night, and lie anxious, until I remember that both boathouse and boyhood are gone.

Out of the same experience come joy and responsibility. As we receive the one we may not ignore the other. Like the sound of the rising wind, the voice of conscience warns and reminds. It is not to be heard in isolation. We must recognize it as coming from our whole experience of the love and glory of God.

Suggested Scripture: Romans XIV, verses 12-end. I Timothy I, verses 5-6.

The Chief of Sinners

It's not possible for us to measure our own righteousness. We are on safer ground when we take our stand with St. Paul as he wrote to Timothy: "Faithful is the saying, that Christ Jesus came into the world to save sinners, of which I am chief." This is not excessive and objectionable humility. To each one of us our own sins should loom much larger than anyone else's. This was the spirit of John Bunyan when he quoted Paul in the title which he gave to his own life's story—*Grace Abounding to the Chief of Sinners*.

If we have never thought of ourselves as sinners and are resting peacefully on our own assumption of goodness, perhaps it will be enlightening to ask ourselves the following questions:

1. Has worship a primary place in my life? Do I recognize it as something which I owe God? Or is it rather something which I feel should please me?

2. Do I make sacrifices because of my faith? That is, does my religion cost me anything in time, energy and money?

3. Does God have any part in my decisions? Do I give Him a place in my daily life, in my business and my pleasure?

4. This next is an unpleasant question, and you know the answer whether you've admitted it or not. Am I happy with myself?

5. Have I a real hope of Heaven or is my whole life built on the things of this earth with my dreams and aspirations beginning and ending here?

Suggested Scripture: I John I, 5-end.

Living Room . . .



[Gutle photos]

Everyone enjoys the brick fireplace that serves as a divider between the living and family rooms with the raised hearth common to both of them

Family Room . . .



This is the family room side of the fireplace above. Some of Betty Meyers' antique pieces can be seen. To the right of the center picture is a recess built to store the family's encyclopedia

Recreation Room . . .



The stones in the fireplace in the downstairs recreation room came from nearby Chin Coulee. All three of these fireplaces are frequently in use



Spacious lawns and beautiful flower beds frame the brick and wood house that is home to the Meyers family

Designed for Comfort

by ELVA FLETCHER

EIGHT YEARS AGO, Betty and Ivan Meyers, of Coaldale, Alta., decided to build a new home. Their old farm home had just about outlived its usefulness and, at that point, Betty brought out the batch of clippings on home planning she'd been gathering over the years. "We just handed the whole works to architect George Watson, Jr., of Lethbridge," she recalls. Only minor changes were made in the plan Watson prepared. Then, a 20-year-mortgage was obtained. The result is what Betty calls a "traditional home with modern comforts" for herself and Ivan and their four children — Mary Jane, 11; Susan, 15; Gena, 18 and 22-year-old Bill.

Members of the family did a lot of the preliminary work themselves. For example, Ivan hauled both the lumber and the brick to the site. The lumber came from Cranbrook, B.C., the finishing lumber from Lethbridge, and the brick from Medicine Hat. He also did a lot of the carpentry himself.

"We drove the first stake in 1956," Betty says. Ivan and young Bill worked with the hired carpenter and his son all through the winter. On Saturdays they got extra help when it was available. They did get outside help with the painting and woodwork. Then, on July 18 of the following year, they moved in. On July 27 they had their first family breakfast in the new home.

The home they built is big. Of brick veneer and wood construction, it has three finished floors, three fireplaces, five bedrooms, and a big old-fashioned pantry. "I didn't think I could keep house without a pantry," says Betty. Among the modern comforts are two built-in ovens, a built-in vacuum cleaning system with outlets on two floors and 30 feet of hose, a dishwasher, and an automatic washer and dryer. The spaciousness provides a fitting atmosphere for the many fine antique pieces that Betty has acquired over the years.

One of the most interesting features of the house is its fireplaces. There are three of them. A brick one on the main floor is actually two, in that it is double-sided. It serves as a divider between the living room and the family room. The other, made of field stone from nearby Chin Coulee, is downstairs in the big recreation room. A billiard table, purchased secondhand from the local Legion is also located downstairs. "It was a real problem to get it down there but after a struggle, we made it," Betty smiles.

Another interesting feature is Betty's selection of floor coverings. She based her selection on the amount of wear each was likely to get. As a result, there's tile in the kitchen, back door entry, pantry, and recreation room. Hard-wearing and easy-care sisal carpeting covers the dining

area floor and the adjoining family area, while broadloom is used in the living room and master bedroom.

With a family of four, Betty and Ivan find themselves very much involved in community life. "We've always made a practice of helping organizations to which the children belong," Betty explains. "After all, if you don't work for your own children, you can't very well expect others to do the work for you." As a result, Betty sings in the choir, teaches Sunday School, works for CGIT, while Ivan has done a stint as school board chairman.

Because they do things as a family, everyone gets to help with the gardening. They have two gardens, one a large vegetable garden, the other a small "kitchen garden" near the house. "I freeze great quantities of everything we grow," Betty says, "and while I may be old-fashioned I still do a lot of things by hand. For one thing, I still find it pleasant to pod peas as I sit and visit." Her own green thumb carries over to the flower beds and lawns that surround the house; they blaze with color all summer long.

Somehow this family's big house belongs to the countryside around it. Maybe it's because this, too, is "big" country.

Ponies and Peacocks



[Guide photos]
The ponies, some borrowed and some their own, are the Irvings' first and foremost attraction, Jim says, and young campers like the freedom and space, too

The male peacock is penned when he molts in July to keep him from eating the petunias. Peacock young are new this year

by **GWEN LESLIE**

Home Editor

PONIES AND PEACOCKS await the city youngsters who holiday at The Wagon Wheel children's holiday haven. And that's just the beginning! There's a doe goat and kid, a ewe and lamb, mallard ducks, guinea fowl, ring-necked pheasants, and Japanese Silkie bantams. There's a dog, and cats and kittens. There's a Holstein dairy herd. And last, but far from least, there's host and hostess Jim and Muriel Irving and their children: David, 12 this month; Naney, 10; Laurie, 8; and Paul, 5.

"Last year was an experiment, and this year it's an experiment on a bigger scale," Jim Irving explained as he gave me a preview of The Wagon Wheel campsite just before the season's opening. For the months of July and August, the Irvings' 150-acre dairy farm at Spencerville, Ont., becomes a holiday haven for city children.

With four children of their own, what prompted the Irvings to take on more for the summer?

"One day my wife asked me what I was ever going to do about saving for the children's advanced education," Jim explains. "I had to admit we weren't making much headway."

"The article in Country Guide about Farm Vacations Inc. made us realize that many of our week-end visitors were from towns and cities," Muriel adds. "With our own children I felt it would be difficult to keep up with the housework

if we took whole families, but I felt we could manage children."

The Wagon Wheel opened for a 6-week season last summer to children from 6 to 12 years of age. The first young guests arrived early in July.

"The children slept in the house last year, and we used the tent for overflow," Mrs. Irving told me. "The extra beds and suitecases made it pretty awkward to keep things in order."

A new bunkhouse, completed this spring, relieves that problem and permits the Irvings to take up to 20 holidaying youngsters at one time. Their maximum last year was 10; once they accepted more than 10, their operation came under department of health regulations for summer camps. To the Irvings this meant that farm milk for the campers must be pasteurized, farm-raised meat must be killed by a licensed butcher, and sleeping accommodation must meet certain standards.

The Irvings are grateful to department personnel for many helpful suggestions. "They pointed out we wouldn't need electricity in the bunkhouse," Jim noted, "nor glass in the windows." The Irvings did install a light over the

bunkhouse door, and 2-piece wooden shutters which fold up from the bottom and down from the top over the screened windows. With the exception of the tin roof, the bunkhouse and the bunks themselves are made from cedar and pine cut on the farm. There is accommodation for 8 girls on one side and 8 boys on the other side of the counsellor's central bunk area.

"We intended it to be a place where the children could enjoy a good pillow fight at bedtime, without hazard to the furniture," Muriel said, "and our own children have wanted to sleep in it from the day it was finished."

"We've improvised where possible," Jim said, pointing to pony harness cut down from full horse size. He feels the ponies are their first and foremost attraction. They have six this year, and one colt. Riding in the buggy, the wagon, and on the ponies' backs is a popular pastime among the holidayers. Jim doesn't encourage using the saddle when guests ride. Most of them are new to riding and he feels they could be dragged. As



The Irvings housed young guests to Wagon Wheel in their Ontario farm home the first summer



Now, a new log bunkhouse built behind the main house accommodates 8 girls, 8 boys, 1 counsellor



The bunkhouse and bunks are of farm cedar logs and milled farm pine boards, Muriel points out

he points out, they haven't far to fall, and it's sandy enough where they ride to give them a fairly soft landing. The Irvings' son David helps oversee the pony rides.

Nearly 15 acres of the Irving farm is sand, and the wealth of surface sand, such as occurs right behind the bunkhouse, is a real contrast to city sandboxes. Jim built a teepee village of birch poles and hemp near the sand area this year; eventually he hopes to build a fort, too, with tunnels and pickets. Muriel stocks the farmyard playhouse with shoes and clothing for dressing up.

Parents are asked to bring young holidayers between 2 p.m. and 4 p.m. on Saturday and to pick them up between 9 a.m. and 11 a.m. the Saturday their holiday ends. The cost is \$18 per child per week. Each child is asked to bring the following:

- 1 blanket
- 1 pillow and pillow cover
- 2 sheets (old)
- swimming suit and towel for beach
- the oldest clothes he or she has
- a flashlight
- rubbers or slip-ons
- 50¢ to \$1 in canteen money

The Irvings plan one special event lasting 2 to 3 hours each day. These include: (1) Pony-riding and buggy driving. (2) A chuck wagon dinner, for which the ponies are hitched to the covered wagon and driven a mile out from camp. After dinner, the party rides back to camp in the wagon. (3) Hikes over Wagon Wheel's acres. (4) A picnic outing to a nearby provincial park in Wagon Wheel's school bus. The Irvings draw on adult friends for additional



Paul Irving, 5, and cousin Debbie, who comes from her town home as often as her dad will bring her, try out the pony-power transport the campers enjoy



The timid mixture that is Dixie, an abandoned pup, made fast friends with Smoky the cat and Bambi the lamb and together they're a gamboling trio

supervision of the swimming, games and lunch. (5) A hay ride. (6) The Friday night campfire at which the campers provide the entertainment.

Because he owns the school bus (mentioned in No. 4) which he drives during the school year, Jim is free to use it for campers too, although he must cover the "school" sign. His success with his bus load of school children is one key to his pleasure in the camping program.

"The youngest one in camp generally follows me all over the farm," he admits ruefully.

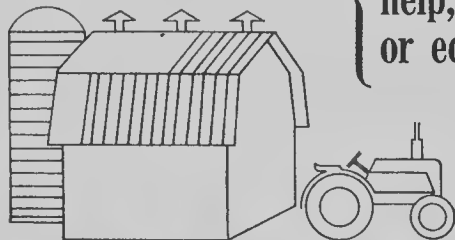
With the help of the two senior high school girls who serve as camp counsellors, Muriel prepares and serves breakfast at 7:30 a.m.; dinner at noon; and supper at 5 p.m. "We find simple food most popular," she says. "We found the children didn't enjoy steak. I wondered if there was

something wrong with the way I was cooking it, but the best answer we could come up with was that they didn't get it at home and just weren't used to it." Fresh homemade bread makes a real hit.

"Our own children are a wonderful asset to the camping program," Muriel says. "They made some close friends among the campers, and correspond with them all year."

"We try to teach the visiting children as much as we can about animals, with emphasis on treating them with kindness," Jim adds, "just as we teach our own."

The Irvings admit to one problem with their farm vacation program. "Our problem has been to get the kids to go home," they confess. "It's downright embarrassing when they won't go with the parents who've come to pick them up!" V



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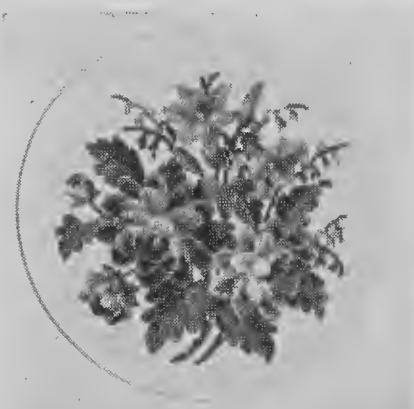
Needle Point Kits

In response to reader requests, Jean McIntosh offers another painted canvas, pictured at r. Painted on 8" by 12" black canvas and worked with 6-strand cotton, this rose picture is a mate to the one offered in February. Order kit No. 3906, price \$3.50.



M-187. Worked from a graph chart, this pretty oval scene is titled "Bluebell Woods." Petit point 2-thread picture 4" by 5½" and 3-thread 5" by 7" cost \$3.50 each. Wool kit (picture 10" by 14") costs \$6. For chart alone, send 85¢.

M-185. "Ladies of the French Court" is the name of this dainty picture. In 2-thread 6" by 6½" and 3-thread 7½" by 8" kits cost \$4.95. In wool (background supplied) picture measures 15" by 16½" and kit costs \$8.50. Chart alone \$1.50.



M-182 and M-183 pictured above l. to r. are two of a 6-floral series suitable for pictures or chair seats. Wool pictures use 18" sq. white canvas and cost \$3.50 each; wool chair seats use 26" sq. ecru canvas, cost \$8 each. Petit point kits: 2-thread 3½" sq. and 3-thread 4" sq. \$2.50 each. Chart alone 35¢.

For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

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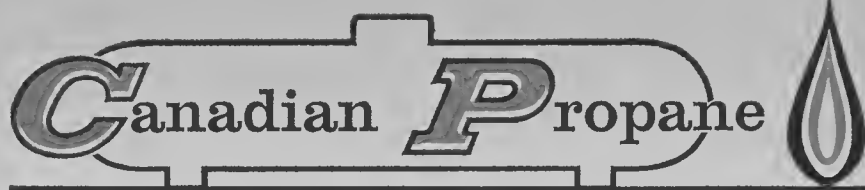
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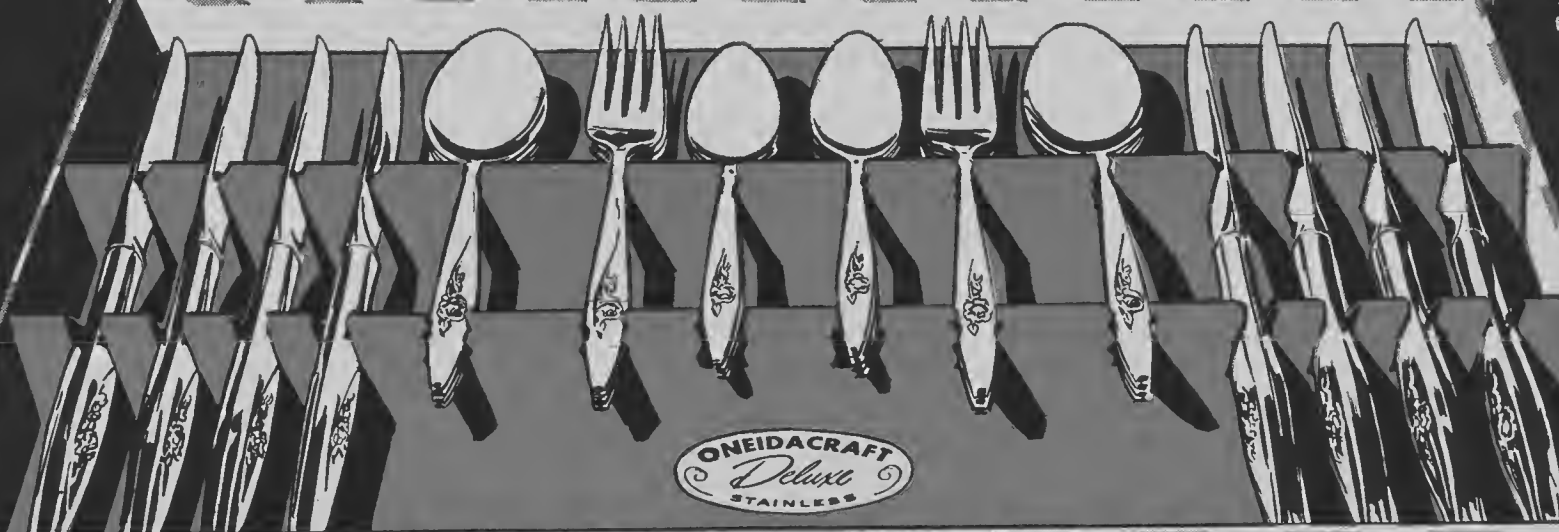
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Spotlight on Sandwiches

AUGUST IS SANDWICH MONTH.

Indoors, outdoors, mealtime and between, the spotlight is on sandwiches in all their infinite variety. Hot or cold, dainty or of hero proportions, sandwiches are very much a part of our eating habits. So many of our favorite foods take to sandwich service!

By varying the bread base as well as the sandwich fillings, it's no trick at all to meet the varied tastes of family and friends. For the calorie-watchers among them, cater with one of the eye-appealing sandwich stacks below.

Sandwich Stacks

Spread a slice of rye bread lightly with prepared mustard. Add a slice of Swiss cheese and spread again with mustard. Overlap 3 slices of ready-to-eat bacon and 2 paper-thin slices of red or Bermuda onion on cheese. Top with a row of sliced stuffed olives or well-drained pickle slices.

Spread a slice of whole wheat bread with pimiento cheese spread into which 1 teaspoon finely chopped green pepper has been mixed. Top with 3 or 4 crisp bacon slices, 1 paper-thin slice of Bermuda onion, and several well-drained slices of sweet or dill pickle.

On a slice of pumpernickel bread, place a slice of process cheese. Spread lightly with prepared mustard. Add 3 thin slices of salami, alternating with 4 to 6 thin slices of cucumber. Garnish the top with a criss-cross of cheese strips 1/2-inch wide.

Some Sandwich Suggestions for Quantity Preparation

1. Buy thinly sliced or unsliced loaves of bread made primarily for sandwich-making. For variety, you might like to make some sandwiches of rye bread, Dutch brown, and fruit bread.

2. To cut an unsliced loaf, use a sharp knife that will cut cleanly.

by GWEN LESLIE

Food Editor

3. Arrange several slices of bread in opened pairs on a flat surface.

4. Spread slices with soft butter, then spread one slice of each pair with a prepared filling — carrying filling into the corners, but not over the crusts.

5. If lettuce is to be used—and it does add interest to most fillings, if sandwiches need not be held too long before serving — tear it into small pieces or slice thinly from head, and arrange over filling.

6. If mayonnaise or a relish is to be added, spread it on the bread slices which have just butter on them.

7. With top slice in place over filling, press lightly to unite the sandwich.

8. Pile several sandwiches evenly and cut off crusts, then cut sandwiches into fingers, squares or triangles.

9. Wrap sandwiches of like filling in moisture-proof kitchen wrap and refrigerate until close to serving time.

10. Arrange an assortment of sandwiches on doily-covered plates and decorate with sprigs of watercress or parsley, radish roses, olives, gherkins, etc.

MEAL-IN-ONE SANDWICH

Bacon and Tomato Special

12 slices bacon	6 T. butter
6 thick tomato slices	Lettuce
3 hamburger buns, split	6 T. mayonnaise
	6 stuffed olives, sliced

Pan-fry bacon and wrap 2 slices around each tomato slice. Toast and butter hamburger buns. Cover each half bun with lettuce, and arrange bacon-wrapped tomato slices on lettuce. Top with mayonnaise and sliced olives. Yields 6 servings.



Buns topped with bacon, tomato and lettuce pair with steaming ears of corn



[National Biscuit Co. photo]

Tasty cracker spreads invite active youngsters to wholesome sandwich snacks

CRACKER SPREADS

Graham crackers and a variety of spreads provide a novel sandwich snack for youngsters from two to teen years. Adults like them too.

Pineapple Cheese Spread

10 oz. can crushed pineapple	1/2 c. chopped maraschino cherries
8 oz. cream cheese, softened	

Beat pineapple and softened cream cheese with electric mixer or by hand until smooth and creamy. Stir in chopped cherries. Store in refrigerator until you wish to use it, then sandwich between graham crackers. Yields 2 cups spread.

Chocolate Peanut Butter Spread

6-oz. pkg. semi-sweet chocolate pieces	12 oz. chunk-style peanut butter
3 T. water	1/2 c. milk

Melt chocolate pieces with water in a saucepan over low heat. Combine melted chocolate with chunk-style peanut butter and milk in a mixing bowl, and beat with electric mixer or by hand until well blended. Chill in refrigerator. Let stand about 15 minutes

to soften at room temperature before you wish to use it as a spread between graham crackers. Yields about 2 1/2 cups spread.

Cream Cheese and Peanut Butter Spread

8 oz. cream cheese, softened	1/2 c. milk
1/4 c. light corn syrup	12 oz. chunk-style peanut butter

Combine cheese, milk, peanut butter and syrup in mixing bowl and beat with electric mixer or by hand until light and fluffy. Store in refrigerator until you wish to spread it between graham crackers. Yields about 2 1/2 cups spread.

Banana Peanut Butter Spread

12 oz. creamy peanut butter	1/2 c. milk
2 bananas	2 T. icing sugar

Combine peanut butter, sliced bananas, milk, and icing sugar in a mixing bowl and beat with electric mixer or by hand until light and fluffy. Refrigerate until you wish to use it. Sandwich between graham crackers. Yields about 2 1/2 cups spread.

SANDWICHES TO FREEZE

A freezer stock of sandwiches can prove a real pleasure. Spur of the minute picnic outings, snacks for guests, and the packing of lunchbox meals are a breeze when you've sandwiches already prepared.

Not all sandwich fillings freeze well, so remember to choose your fillings from those that do. Avoid hard-cooked egg white which tends to toughen and become rubbery, vegetables (because they lose their crispness), and the types of salad dressings that may separate and curdle. If your family has one special favorite dressing, check its quality for freezing by placing a small amount in a

tightly covered container and freezing it overnight. If it neither separates nor curdles, you can be sure they will enjoy it just as well in the sandwiches you freeze.

Any cold, sliced meat, fish, poultry and cheese can be used in sandwiches to be frozen. Peanut butter, cheese, salmon, poultry, roast beef, egg yolk, ham, lamb, and tuna fish fillings will freeze satisfactorily for 3 to 4 weeks.

The following fillings are recommended by the Ontario Department of Agriculture consumer service as freezing well. Remember to spread bread generously with butter to keep fillings from soaking into the bread.

Peanut Butter and Bacon

1/2 c. peanut butter	10 slices crisp-cooked, drained and chopped bacon
12 olives, chopped finely	

Cheese

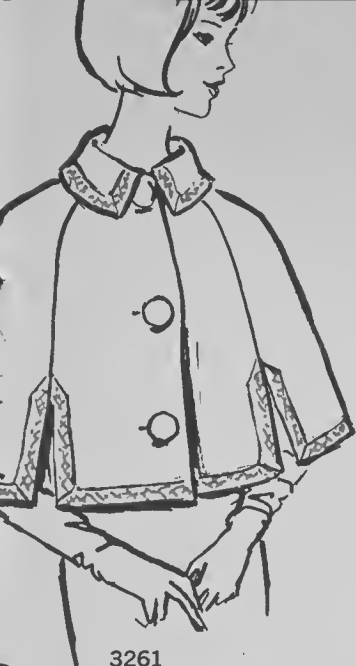
3 oz. cream cheese	1 T. minced onion
3 oz. blue cheese	1/4 c. milk, or more

Beef and Catsup

1 1/4 c. cooked, minced beef or other meat	1/3 c. catsup or chili sauce
1/2 tsp. salt	1 tsp. horse-radish

Beef and Relish

1 c. cooked, minced beef or other meat	3 T. pickle relish
1/2 c. salad dressing	1 T. minced onion
	1/2 tsp. celery salt



3261
Capelet with braid trim,
Misses' sizes 10-18 75¢



3217
Indispensable
cowl-necked blouse.
Misses' sizes 10-18 60¢



3219
Swing into a front-wrapped
coachman skirt.
Misses' sizes 24-30 60¢



3262
Blouson jumper and sailor
blouse. Misses' sizes 10-16 75¢



3246
Figure-conscious
princess dress and stole.
Misses' sizes 10-16.
Junior sizes 9-13 75¢



3248
Double-breasted,
back-belted coat dress.
Misses' sizes 10-16.
Junior sizes 9-13 75¢



3264
Tote and clutch bag.
Two to make from a collection
of 6 sizes 60¢



3247
Evening glamour . . .
a plunge and a ruffle.
Misses' sizes 10-18 75¢

Fashion Forecast . . .

THE LIVELY LOOK in fall fashion is created with wandering waistlines and soft fullness at neck, in sleeves and skirts. It's fashionable to be feminine! Neckline news is softly told—in cowls, cuffs, scarves, and away-from-the-neck collaring. Ruffle trim softens the low, low necklines for after-dark wear.

The figure-conscious shift, the coat-dress and the graceful ease of the blouson dominate the fall fashion silhouette. Coat-dresses, jumpers and coats of every length borrow the double-breasted buttoning of blazer styling, and the blazer itself continues to bask in fashion's favor.

Sleeves are grand gestures in full-blown shirt styles; cuffs catch the billowing fullness in at wrist or higher on the arm. In contrast, long slim sleeves are used on simple winter wools.

The lively look in skirts is one of action: A-line flares and plenty of pleats produce an optical illusion of length for which fashion experts prescribe shortening to one inch higher from the floor than you would wear a slim skirt.

Pleats and back belting add interest to your exit in coats designed to keep out winter winds.

BRIGHT, BRIGHT COLORS in unexpected combinations accent the fall and winter scene.

Reds radiate from burning bright to orangy, pizza shades, to garnet, raspberry, and a rich carnation red.

Blues blaze in royal and flag shades, then blend to brilliant sky blues and peacock tones. Look for a new winter dark tone called French navy.

Greens are great, from bright shamrock to pine and spruce, and yellowed hues ranging from light chartreuse to olive.

Fashionable *golds* gleam in sunflower, amber and spicy mustard shadings.

The rich depth of *purple* tones from ultra violet to heady grape hues, pungent plum and glowing fuschia. *Browns* range from timber tones, through rust and golden casts, to the newest, very-dark chocolate. Watch for pale *neutrals*, elegant alone and intriguing in mixture with the season's brilliants or browns. Even the names are intriguing: aura of chamois; string; putty; greige; light camel; flannel gray.

For late-day wear, that season-spanning pair—*black* and *white*—create their own light and shadow.

A Lively Look!

THE EMPHASIS is on **TEXTURE** in fabrics of every fiber—a wonderful wealth of surface interest prevails in wools, silks, synthetics and cottons. Distinctive, luxurious tweeds offer nubbed, looped and puffed variations. The interweaving of fat, thin and ropy yarns give some a carved look.

KNITS and **DOUBLEKNITS** appear in nubby tweeds, ribbon knits, crochet and lace effects. In contrast, you'll see smooth, silk-like knits of synthetic fibers. **SMOOTH SURFACE FABRICS** express the "soft look" in fleeces, shetlands, supple crepes, velvets and jerseys. Twills give a new flat look to coats and suits. **STRETCH** flannels, batistes, corduroys, velvets and velveteens—the latest fabric feats—lend fitting ease to sportswear, leisure clothes and school wardrobes.

Choose your **PAISLEY** pattern from tiny tie-typs, medium or zesty oversize prints. There's the same range in stripes, from pin-size to flamboyantly wide ones. Plaids are bold, prints are big; but there are neat calicos and stylized florals, too. Lace graces evening and festive hours. ✓

Use the Country Guide pattern department coupon on page 36 to place your order for patterns shown above.

Tips for Teen-Age Voters

by RUSSELL DOERN

Part I

The Right to Vote

THE UNIVERSAL FRANCHISE, or the right of every adult citizen to vote, was achieved through an evolutionary and often revolutionary process throughout history.

The roots of this structure, the basis of democracy, are inherent in the system of government which emerged in England insofar as our political philosophy is concerned.

There was public participation in the earliest Parliaments but as late as 1830 the British electorate consisted of only 400,000 eligible voters. Seats were allotted to areas that had lost most or all of their population, while large cities, such as Birmingham and Manchester, were unrepresented. Elections were corrupt and in some constituencies the price of seats was openly quoted.

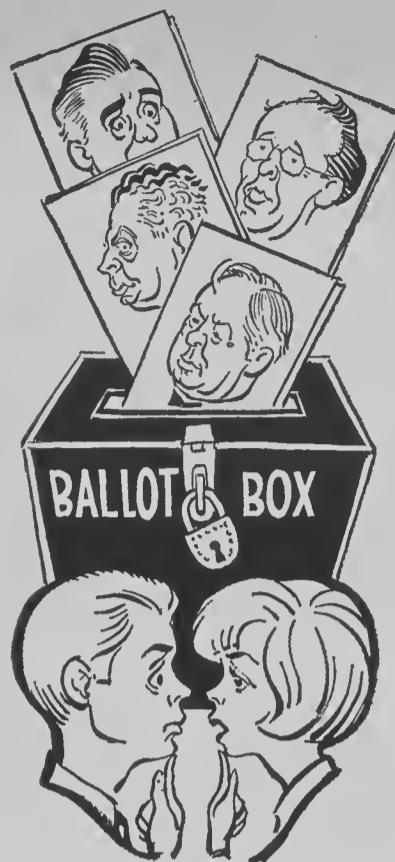
The great reform acts of 1832, 1867, and 1884, which enlarged the electorate and corrected the abuses,

were the result of the growth of the working and middle classes out of the Industrial Revolution.

But it was not until after the First World War that the universal franchise was established for all adult citizens, male and female. In Canada, Manitoba, Saskatchewan, and Alberta were among the pioneers of equal rights for women, enacting legislation in 1916. In 1920 equality was established in federal voting.

The Second World War again saw the western provinces widening the electorate. Servicemen were given the franchise during the war on the premise—old enough to fight, old enough to vote — and this became a permanent fixture. Alberta and British Columbia set the voting age at 19; Saskatchewan placed the age at 18.

It appears almost certain now that 18 as the voting age will soon be adopted by Parliament. This would seem to be the last practicable step in the growth of the franchise.



Illustrated by
PIERRE

Part II

Why Bother to Vote?

DEMOCRACY IS BASED on the assumption that the people will participate in government as candidates or by electing representatives. However, unless the citizens of a democratic country are informed,

and take their rights and duties seriously, democracy cannot function. If the people are unwilling to participate in elections, some interested group will seize control. For instance, if 10 per cent of the eligible voters are Communist or Fascist, and only 20 per cent of the eligible voters turn out, democracy will fail.

Although it is a matter of concern that only a fraction of the population turns out at the polls, it is equally disturbing that many of those who do vote are uninformed. The simple act of marking a ballot is illusory. Placing an 'X' beside whatever name first appears on the ballot is not really voting.

The intelligent and conscientious citizen follows politics the year round, and votes in accordance with what he believes to be in the best interests of the nation or the region. It is necessary to study candidates' performances and policies before, as well as during the elections, because certain complex issues require months of study, defense or the budget, for example. Secondly, a person's judgment may be warped by the heat and fury of electioneering.

Finally, unless you are willing to register your considered opinion at election time, you have no right to complain about taxes, policies, or the actions of politicians — a position comparable to living under dictatorship.

(to be continued)



Petunia, Prize-Winning Pig

by SHIRLEY MASKEWICH

OF ALL THE PIGS that lived on the farm, Petunia was Andy's favorite. It's true she was the skinniest, and had the straightest tail. But everyone agreed that she certainly was the *smartest*! She followed Andy wherever he went, just like a puppy. In fact, Andy wondered sometimes if she really thought she was a puppy. But, of course, Petunia was too smart for that.

That was why Andy decided to enter her in the fair. A pig as smart as Petunia was bound to win a ribbon. But when he told everyone at supper, they laughed and laughed, all except Mother, who put her arm around him and explained that since there wasn't any prize given for a *smart* pig, perhaps Daddy would let him enter one of the other pigs, if he worked to get it ready in time. Still Andy didn't want to take any other pig to the fair.

He asked to be excused from the table, and slumped outside. He blinked hard to keep back the tears, and went to find Petunia. She was down by the wagon, and Andy sat

on the wagon tongue and took her pink, silky ears in his hands. How could he tell Petunia that she would never be a prize-winning pig? She seemed to understand, though, because she rubbed against Andy's legs and looked very sad.

Andy thought and thought about how he might make poor Petunia happy. Suddenly, he had a wonderful idea! He would change her into a beautiful pig, just like the one he saved his pennies in. It was a pink china one, with orange and green and purple polka dots. Petunia was pink, and Andy was certain he could do something about the polka dots. She would be *so beautiful*! She would put all the other pigs at the fair to shame!

Andy ran to the machine shed, where Daddy kept his paint and brushes. Petunia scampered after him. There were three cans on the shelf — one held red paint, another blue, and another yellow. He wanted Petunia to be *exactly* like the piggy-bank pig and these colors just

wouldn't do. Again Andy blinked hard to keep back the tears. Just then his favorite hen, Henrietta, strutted into the machine shed. At that moment Andy had another idea! He'd ask Henrietta for help.

"Hi, Henrietta," Andy said. "Can you tell me how I can paint orange and green and purple polka dots on Petunia when I have only red and blue and yellow paint?"

Henrietta cocked her head to one side for a moment, her eyes very bright. Then she clucked:

"If you would be a clever fellow
To make your orange, mix red and yellow."

Andy did exactly what Henrietta told him to do. Sure enough, he got just the right shade of orange. He painted five big, orange polka dots on Petunia.

Henrietta strutted around admiring the job. Again she cocked her head to one side and clucked:

"Now do just what I tell you to —
For green, mix yellow with the blue."

Andy did exactly what Henrietta told him to do. Sure enough, almost like magic, he got the right shade of green. Then he painted five big, green polka dots on Petunia.

Once again Henrietta strutted around, admiring the job. Then she clucked:

"For purple (such a lovely hue)
A little red — a little blue."

Andy did exactly what Henrietta told him to do. Once again, just like magic, he got just the right shade of purple. He painted five big, purple polka dots on Petunia.

Now the job was done, and Petunia was the most beautiful pig you could ever imagine! Well, there was *one* thing that wasn't quite right. Her tail was still straight. But Andy dipped a piece of binder twine into the blue paint can, and when it was dry he tied it into a bow on Petunia's tail. And that fixed *that*! Henrietta flapped her wings and fluttered away to cackle the news to the rest of the barnyard folk.

Now all Andy had to do was to keep Petunia hidden until next day, and then haul her, in his shiny-red wagon, to the fair. He wanted to surprise everyone. And he certainly did!

Next day Andy walked into the judging ring, pulling his wagon. Petunia was in a box on top. When Andy opened the box, out jumped Petunia, looking exactly like the piggy-bank. Everyone stopped talking and turned to see her.

"Wonderful," chuckled Mr. Busby, one of the judges. "Wonderful! This is the handsomest pig I have ever seen!"

By this time Petunia was showing off by doing every trick Andy had taught her.

"And the smartest!" cried Mr. Piper, the other judge.

Then the judges put their heads together and whispered and nodded. After that they fastened the biggest blue ribbon Andy had ever seen around Petunia's neck. Everyone cheered and clapped. They shook Andy's hand and patted Petunia.

And who do you suppose was the proudest boy at the fair?

News Highlights

(Continued from page 10)

stated that Western grain moved by trucks within Eastern Canada will now be eligible for freight assistance. The new policy comes into effect on August 31. The Minister added that the government is waiting for a report of the House Committee on Agriculture and the result of certain studies before establishing a more permanent feed-grain policy.

An amendment to Ontario's Junior Farmer Loan Act will increase the maximum loan for junior farmers in that province from \$20,000 to \$40,000 and to a similar maximum in the case of the family farm.

The Canadian Wheat Board has negotiated a contract for the sale of 16.3 million bushels of feed barley to mainland China.

Sales of farm implements and equipment in 1963 were valued (at wholesale) at \$329,612,000, an increase of 16.6 per cent from the 1962 total of \$282,677,000. Year's sales of repair parts (included in total sales) rose 13.5 per cent to \$49,789,000 from \$43,879,000 in 1962.

The American Heart Association has recommended that Americans begin reducing the amount of fat they eat and begin "reasonable substitution" of vegetable oils and polyunsaturated fats for animal fats. This is said to be the first time this group or any other major medical group or government agency has advised the public to make such a change in their eating habits. Purpose of the change is to reduce the risk of a heart attack or stroke.

Two community pastures involving 4,800 acres of land on Manitoulin Island will be developed under the terms of ARDA. In making the announcement, Ontario's minister of agriculture noted that one pasture will be in Robinson Township and the other in Allan Township.

Ralph Staples of Ottawa, has been re-elected for a twelfth 1-year term as president of the Co-operative Union of Canada.

Farm organizations may have to build their own agency to meet the growing needs of farmers for operating credit at reasonable interest rates, and it may well be some kind of co-operative. This is the view expressed by Lorne Hurd, assistant executive secretary of the Canadian Federation of Agriculture, in addressing the Co-operative Union of Canada. He said that farmers are often paying too much interest for operating credit, and cited a 1961 federal study showing that 40 per cent of farmers' operating credit is extended by farm supply and equipment companies at interest rates ranging upward from 16 per cent.

The support price for Ontario-grown soybeans will be \$2.15 per bushel for the 1964 crop, which is the same as last year. Support is provided through deficiency payments.

Net costs and payments of the Agricultural Stabilization Board for the fiscal year ended March 31 amounted to \$124,789,000.

Ray Hergott has been appointed secretary-manager of the Ontario Federation of Agriculture. He succeeds Bob Carbert who resigned to join the CBC Farm Department. Mr. Hergott has been director of field services for the OFA.

PROVIDE IRRIGATION INFORMATION

Most experts agree that you can get better land and water conservation through the use of sprinkler irrigation, in spite of the comparatively high initial costs. But it is important that you understand the types of sprinkler systems available so you can select the one best suited to your own particular needs.

To ensure that sound technical and management information is available to those who use or intend to use sprinkler irrigation, manufacturers, distributors and suppliers have formed the Sprinkler Irrigation Development Association. The SIDA was registered as a non-profit association under the Societies Act in Edmonton, Alta., in March of this year.

The aims of the SIDA are: (1) To encourage the development, proper use and acceptance of sprinkler equipment so as to promote soil and water conservation and higher crop yields per acre; (2) to collect and distribute information on sprinkler irrigation, and acquaint the public and various institutions and organizations with developments in the industry; (3) to secure co-operative action among members so as to achieve the greatest economy and efficiency; and (4) to be prepared to give proper consideration to questions affecting the industry and the interests of the country.

They intend to do this by making interesting films available to groups of farmers, government agencies and students, and distributing information and articles to all farm news media. In co-operation with other associations and government agencies, SIDA is launching a program to establish proper standards of design, installation and performance of sprinkler irrigation equipment. A general symposium covering all aspects of sprinkler irrigation is proposed for November 1964. It will include speakers and panels drawn from industry, farm organizations and government.

CO-OPERATIVE GROWTH RATE

The Royal Commission on Taxation has been told that four large firms each had higher gross sales in 1961 than all of Canada's purchasing co-operatives put together. This statement, made by the Co-operative Union of Canada, went on to deny that co-operatives have grown faster than other businesses.

It said that the gross sales of co-operatives must be measured in terms of their share of the market

and this had changed little since 1945 and a projection of present trends indicated little significant change in the foreseeable future.

The CUC said that total sales by Eaton's in 1961 — according to a Time Magazine estimate — were \$630 million. Sales by Loblaw's were \$421 million, by Simpson's and Simpsons-Sears \$412 million, and by Dominion Stores \$408 million, compared to \$392 million gross sales by consumer and supplies co-operatives.

NEW SELLING PLANS

Ontario's farm marketing program is taking another step forward. Following a vote of egg producers in which 68.4 per cent of those voting favored establishment of a marketing plan (the 2,861 producers who voted own nearly half of Ontario's total hen population) Minister of Agriculture W. A. Stewart has announced that an egg and fowl producers' marketing plan will be set up in the near future.

The Minister also announced that a promotional plan to stimulate sale of apples and apple products will be set up in the province. This decision follows a secret ballot taken at district meetings of growers. The growers who voted control 57.7 per cent of the commercial apple acreage in the province and 69 per cent of them were in favor of the promotional enterprise. It is likely that the Ontario Fruit and Vegetable Growers' Association will be designated to carry out the program. Its purpose will be to stimulate the sale of apples. It will arrange for a study of marketing procedures; for the development of additional research; and for promotion through advertising. It will be financed through a license fee of 4 cents per hundred pounds of apples sold for processing; 2 cents per hundred pounds of apples sold for juice, and 3 cents a bu. for apples sold for purposes other than processing or for the production of juice.

PREDICTS CONTINUING WHEAT MARKET

During the next few years Canada's traditional markets in such countries as Britain, Germany and Japan should take 270 to 300 million bu. of Canadian wheat annually while alternative markets, chiefly in China and Eastern Europe, will probably take an additional 160 million bu. per year. This is the prediction of A. M. Runciman, president of United Grain Growers Limited,

made in mid-July in Toronto. He added that with domestic consumption running at about 145 million bu. a year, this would provide a total annual market for Canadian wheat averaging close to 575 million bu.

SOIL AND FEED TESTING EVALUATED

So many farmers are sending in soil and feed samples for analysis to the Alberta Department of Agriculture's Soil and Feed Testing Laboratory, at the University of Alberta, that the laboratory is becoming too small. As a result, a survey is being made this summer of the way farmers use the recommendations they get from the laboratory to see if further expansion of the service is warranted. About 6,000 samples a year are now received.

TEAMSTERS STRIKE VEGETABLE INDUSTRY

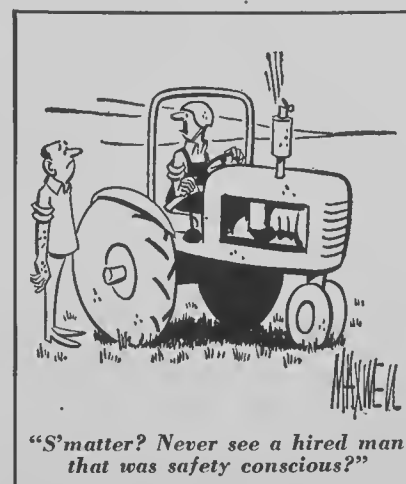
Ontario's farmers have felt the pressure of a strike directed against their industry and as a result, it is apparent that big time, American-dominated unionism has gained a foothold in Ontario farming. Many farm leaders are uneasy about this new situation. The fact that the union concerned is the notorious "Teamsters" doesn't make it any easier to accept.

Some months ago the Teamsters moved into Bradford where 7,000 acres of rich muck soil produce crops of top quality lettuce, carrots, onions and many other vegetables. The Ontario Labor Relations Act, like others in Canada, exempts farming, but the Teamsters had eyes on the packing sheds where the vegetables are prepared for shipping.

In the three largest plants which are owned by Federal Farms, United Farms, and Holland River Gardens, the Union was successful in signing up many of the workers to membership cards. It was then certified as their bargaining agent. The owners of the packing sheds and the Ontario Fruit and Vegetable Growers' Association, which represents growers, opposed the move on the grounds that grading and packing are part of the farming operation. Not so, ruled the Ontario Labor Relations Board, even though its attention was drawn to a precedent argued before the Quebec Board when that body ruled such activity was a necessary part of the farm production process.

The wage increases and extra fringe benefits gained by the workers were moderate. But the important thing from agriculture's point of view is that efforts to have the workers ruled exempt failed. The companies have been forced to recognize the unions by signing contracts.

The strike of workers began with the men going out on June 22 just as the lettuce crop on the Bradford marsh was starting to come to market in quantity. The union had been certified several months earlier by the Ontario Labor Relations Board to bargain for the workers, but the



union leaders took no action until the highly perishable head lettuce crop was moving. Typical of many Teamster strikes, the first days were marked by picket line violence, threats and intimidation.

After 2 weeks of stalemate, the managements of the three firms and the union reached agreement on a contract, and the workers went back to the packing lines. Even that short strike was costly to farmers. Before the strike the plants had been busy. By the time the strike ended the big buyers had substantial orders placed elsewhere. It is a fair guess that many of the orders went to U.S. suppliers.

What are the future implications of this strike and its settlement for Canadian farmers? It seems apparent that unions are here to stay. Wherever agriculture has become "bid business" in the United States, the unions have moved in, and have become well established. The same may be expected in Canada.

Judging by statements from union leaders, it is to be expected that as soon as things are running smoothly at Bradford, further efforts to sign up workers in other agricultural packing sheds in Ontario may be expected. It may be just a case of whether they tackle the remaining small Bradford plants first or turn elsewhere for another foothold.—S.J.C. V

Credit Problems Pin-pointed

Five major fields of farm credit that are not now being adequately serviced have been pin-pointed in a study prepared for the royal commission on banking and finance. The study was conducted by D. W. Carr and Associates of Ottawa and was released in conjunction with the commission's report. The study also makes recommendations designed to provide a more effective and better balanced credit program in keeping with the needs of farmers and the changing structure of farming. The report suggests that the competitive position of Canadian agriculture would be strengthened if the required changes are made.

In commenting on the report, the Canadian Federation of Agriculture notes that the five major fields of farm credit identified as requiring more effective services are as follows:

Adjustment and operating credit. Farmers find themselves in need of more and more credit to change their farm operations to keep pace with modern technology. The greatest need is for suitable short and intermediate term credit services.

Transfer credit. Mortgage credit is the important one. The needs of small and medium sized farm enterprises are being reasonably well served through direct government

lending. However, farmers with enterprises valued at \$75,000 and more do not have credit sources to make it possible to transfer these farms to other owners.

Rehabilitation credit. This could play an important role in rural development programs. It requires services and facilities different from other types of farm credit because it calls for supervision and assistance to individual farmers. It also must be fitted in with numerous other community development measures.

Community credit. This is another part of credit services for which a demand is likely to develop as ARDA-like programs increase. Community projects such as drainage, irrigation, water supplies and recreation could be helped through this kind of credit. However, no special credit service has yet been established to meet this demand.

The Carr report sums up by saying that an effective farm credit system can be developed with very little change in the established financial structure.

The study states that the government would need to set up a suitable development and administrative body to ensure the establishment of a co-ordinated and comprehensive credit system such as the one proposed. The established governmental

agencies for direct farm credit could be fitted into the structure of the new body.

The Carr report also recommends that the Farm Improvement Loans Administration should be more closely associated with the Canada Department of Agriculture so that the banks could more readily obtain the specialized technical guidance and advice of agricultural credit experts. In addition, facilities should be established for local appraisal of loans by the farmer-borrowers' peers. This would mean that farmer-borrowers would participate jointly in both financing and lending responsibilities. The government would guarantee the organization's bonds on the money market until it becomes self-sustaining. The banks in lending to such local credit organizations would have the benefit of the government guarantee, the local appraisal, and the added security of joint liability by the borrowers. Farm supply companies would be happy to transfer their big load of farm financing over to these specialized facilities.

In addition, to meet the growing demand for transfer credit for large scale farms, the Carr paper suggests that such credit needs could be handled in the same way and by the same local farm credit facilities that are proposed to serve in the short and intermediate term credit fields. V

Letters

Don't "Sell" Religion

Regarding "Rural Route Letter" in your June issue, I think you will find very few hucksters trying to "sell" religion. There is no profit in selling this commodity. In most cases you will find these people are dedicated Christians spending their hard-earned cash trying to present the modern "Consumer" with the facts. The commission left to the Church is to confront (not convert) the world with the message of "LIFE." Since TV advertising works, why not go modern? Christianity IS right with the times!

It might surprise you but missionaries from the "backward" countries have been here for a number of years trying to get us on the right track. (If we are not on "the track" we are on the wrong track.) Missionaries are even being sent to the birthplace of the Reformation!

Just think, how would an exchange student or a visiting diplomat feel if he were introduced to a large audience as an individual from a "backward" country. Let's call them developing countries. It is the modern, diplomatic term.

D.D.,
Boisevain, Man.

Publicize Parks

I wish to thank you for your article on the Saskatchewan Regional Park Program in your June issue. I had a number of favorable comments on it during my field trip this past week. I am sure it will do much to

further publicize our program in Saskatchewan and programs in other parts of Canada.

G. G. RATHWELL, Director,
Regional Parks Branch,
Department of Natural Resources,
Province of Saskatchewan.

Correction

Your article, High-Production, Low-Labor Dairy Farm in the June issue, is in the main a true picture of my operation. I would like to express my appreciation for the care and attention to detail which you have shown in producing this article. Thank you.

There are, however, several inaccuracies which, in order to assist any of your readers who may wish to pattern their operation on this type of farm, we should correct.

Firstly: The dressing per acre of commercial fertilizer should read 300 to 350 pounds of 10-30-10 and 16-20-0, and no nitrogen to alfalfa.

Secondly: The liquid manure tank fills up in approximately 8 weeks, not in 2 weeks as stated.

Thirdly: A point I would like to emphasize is that on the grass-legume mixture referred to, not only have my neighbors lost stock but I have lost 7 head in 2 years from bloating caused by excessive ladino growth in new seedings.

Lastly: The alfalfa stand is not grazed at all, but is retained solely for forage. Grazing rotation takes place on the grass fields.

Wishing you continuous success for your publication.

G. H. SCHWICHTENBERG,
Agassiz, B.C.



Hi FOLKS:

The other day our TV broke down and I rediscovered an old way of living. Some call it daydreaming. I also found what a hard job it is to do any daydreaming in this busy world we have built for ourselves.

It all started when I put a Mantovani record on the Hi-Fi and sat back to listen. The music was Sigmund Romberg's and the tune was "When I Grow Too Old To Dream." It took me back to berry-picking days in a place many miles from here. Near the farm was a small saw-mill and a lumber scow moored in the river. A girl friend and I used to sit on the scow and watch the moon come up — a much bigger and brighter moon than we seem to have today. Maybe all the missiles the Russians and Americans have been firing at it have shriveled it up, or maybe it's just the years.

"Hey, Daddy." There was a dream break here as a son — caught in the toils of bi-culturalism — wanted me to read back some French verbs. There's nothing like a "hey, Daddy" to bring a fella back to earth.

When I had finished, I found the record was playing "The Desert Song." Every time I hear this I remember our church back home. It was a high, old-fashioned type with great organ pipes which rose away above the congregation. Our minister was a dour Irishman who used

to rail against the evils of singing frivolous songs such as "Auld Lang Syne" when we had so many glorious hymns to choose from. (A Scottish lady later cornered him and demanded why he hadn't used "When Irish Eyes Are Smiling" as the horrible example.)

This was the setting for our plot to have a "Desert Song" piece played during the evening service. Being only a few years older, and a "Desert Song" fan to boot, the organist agreed. His price was that we would stop climbing up behind the pipes and rearranging the reeds to make the organ play out of tune.

Next Sunday all the teenagers in the congregation waited expectantly. Then it came — the slow majestic strains of "One Alone." We shot covert glances around, but none of the adults appeared to notice, so we sat back and enjoyed it. Serene in the belief he was listening to a hymn, the minister enjoyed it too. And I don't think the Lord minded.

Another "hey, Daddy" interruption here. A girl this time. It was an arithmetic problem where A had six apples, B had four and C had only two. Between us we found the answer. I couldn't help reflecting how quickly the kids grow up. Life soon teaches there will always be problems — among them the fact that some people do have six apples while others have only two, or even none.

Then the dog scratched at the door. This one is the biggest "hey, Daddy" of them all, mainly because he'll never grow up. By this time, the record had finished. But it was a pretty good half-hour program at that.

Sincerely,
PETE WILLIAMS.

Cookies

If you have a cookie jar crowded at your house, chances are that the cookie canisters need frequent filling. Here are some new variations of old favorites.

Applesauce Brownies

- ½ c. shortening
- 3 oz. unsweetened chocolate
- 1 c. granulated sugar
- 2 eggs, beaten
- ½ c. applesauce
- 1 tsp. vanilla
- 1 c. all-purpose flour
- ¼ tsp. baking soda
- ½ tsp. baking powder
- ¼ tsp. salt
- ½ c. broken walnuts

Preheat oven to a moderate temperature of 350°F.

Melt shortening and chocolate over hot water. Beat eggs; add sugar gradually until mixture is light and fluffy. Blend in chocolate mixture, applesauce and vanilla. Sift together flour, soda, baking powder and salt. Blend into chocolate mixture. Fold in walnuts. Turn into well-greased 9-inch square pan. Bake 35 to 40 minutes or until shiny look on mixture has disappeared from surface and the top looks dull. Cut into bars or squares while warm. Remove when cool.

Applesauce Date Cookies

- 2 c. all-purpose flour, sifted
- ¼ tsp. cloves
- 1 tsp. cinnamon
- ¼ tsp. nutmeg
- ½ tsp. baking powder
- 1 tsp. baking soda
- ½ tsp. salt
- 1 cup chopped nuts
- ½ cup chopped dates
- ½ cup shortening
- 1 cup sugar
- 1 egg
- 1 cup thick canned applesauce

Preheat oven to a moderate temperature of 350°F.

Sift flour, cloves, cinnamon, nutmeg, baking powder, soda and salt together. Mix ½ cup of flour mixture with nuts and dates, coating well. In a mixing bowl, work shortening until creamy. Stir in sugar gradually, then heat until fluffy. Add eggs; beat thoroughly. Add remainder of sifted dry ingredients alternately with applesauce, blending well after each addition. Stir in floured fruit-nut mixture. Drop by tablespoonfuls 2 inches apart on greased baking sheets. Bake 15 to 20 minutes, or until firm to the touch. Makes about 3 dozen.

Coffee Bars

- 1½ cups flour, sifted
- ½ tsp. baking powder
- ½ tsp. soda
- ½ tsp. salt
- ½ tsp. cinnamon
- ¼ cup shortening
- 1 cup brown sugar, packed
- 1 egg
- ½ cup hot coffee
- ½ cup raisins
- ¼ cup chopped walnuts

Preheat oven to a moderate temperature of 350°F.

Sift flour, baking powder, soda, salt and cinnamon together. Cream shortening and sugar thoroughly. Add egg and beat well. Add coffee and mix well. Add flour mixture, raisins and nuts. Mix to blend. Spread in a greased 11" x 16" jelly roll pan. Bake 15 to 20 minutes. Frost with Coffee Icing while still warm. Cool before cutting into bars. Yields 4½ to 5 dozen bars.

To make Coffee Icing, mix 1 T. hot coffee with ½ cup powdered sugar.



Gala Dessert Roll

Looks like a Party!

Chiffon-light dessert with a luscious, rum-flavored cream filling. Bake it with Magic and serve it with pride—fresh-made, or later as a frozen delight!

GALA DESSERT ROLL

- | | | |
|-----------------------------------|-----------------------------|----------------------------------|
| 2 oz. unsweetened chocolate | ½ tsp. salt | ⅓ cup water |
| 1 cup sifted pastry flour | ¾ cup fine granulated sugar | 1 tsp. vanilla |
| or ⅞ cup sifted all-purpose flour | ¼ cup cooking (salad) oil | ¼ tsp. Gillett's Cream of Tartar |
| 1½ tsps. Magic Baking Powder | 3 egg yolks | ½ cup egg whites (at room temp.) |

Grease a jelly roll pan (approx. 10½ x 15½ inches); line with waxed paper; grease paper. Melt chocolate; cool slightly. Sift flour, Magic Baking Powder, salt and sugar into mixing bowl. Make a well in flour mixture; add oil, egg yolks, water, vanilla and chocolate. Mix liquids a little with wooden spoon; combine with flour mixture and beat until smooth. Sprinkle cream of tartar over egg whites; beat until very, very stiff (much stiffer than for meringue). Fold in batter, part at a time. Turn into prepared pan; spread evenly. Bake in a moderately hot oven (375°) 18 to 20 minutes. Turn out at once onto a granulated-sugar-sprinkled tea towel; peel off paper; trim away crusts and, beginning at a narrow edge, roll

up cake in towel, jelly-roll fashion. Cool completely on wire rack. Unroll cake, spread with ⅔ of the following Whipped Cream Filling, re-roll and spread with remaining whipped cream. Decorate with shaved chocolate. Chill at least 1 hour or freeze, wrap and keep frozen to serve as a frozen dessert.

WHIPPED CREAM FILLING: Soften 2 tsps. plain gelatine in 2 tsps. cold water; melt over boiling water; cool. Beat 1 pint (2½ cups) whipping cream until thickened; add gelatine all at once; beat until cream is almost stiff. Gradually beat in ⅓ cup sifted icing sugar, ¼ tsp. vanilla and 2 tsps. rum flavoring or 3 tsps. rum or ½ tsp. almond or peppermint extract. Beat until stiff.

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